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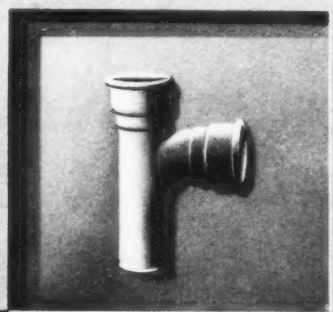
VOL. NO. 105 · ISSUE NO. 2712 THE ARCHITECTS' JOURNAL FOR JANUARY 16, 1947 REGISTERED AS A NEWSPAPER

THE ARCHITECTS' JOURNAL

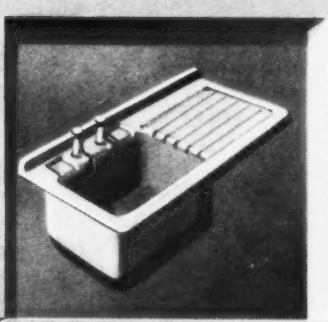
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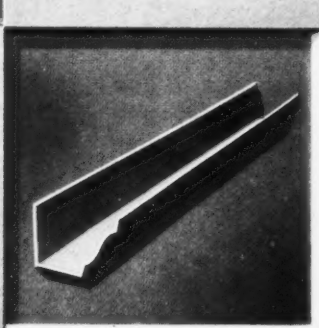


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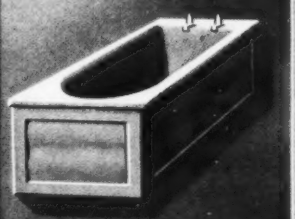


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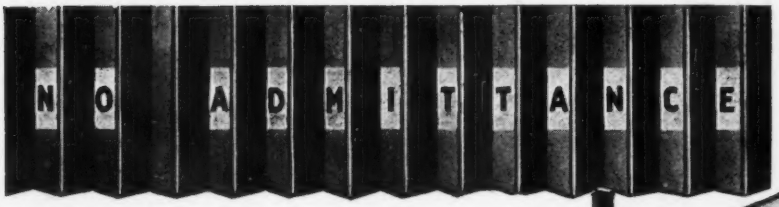
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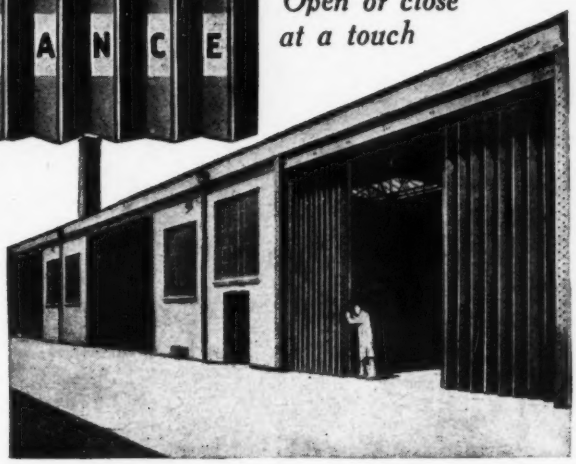
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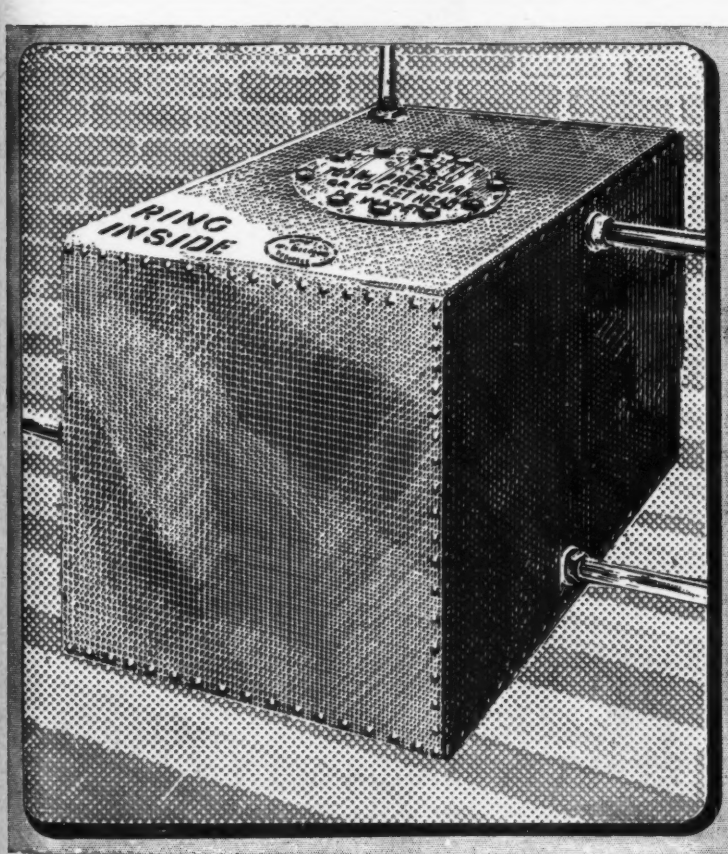
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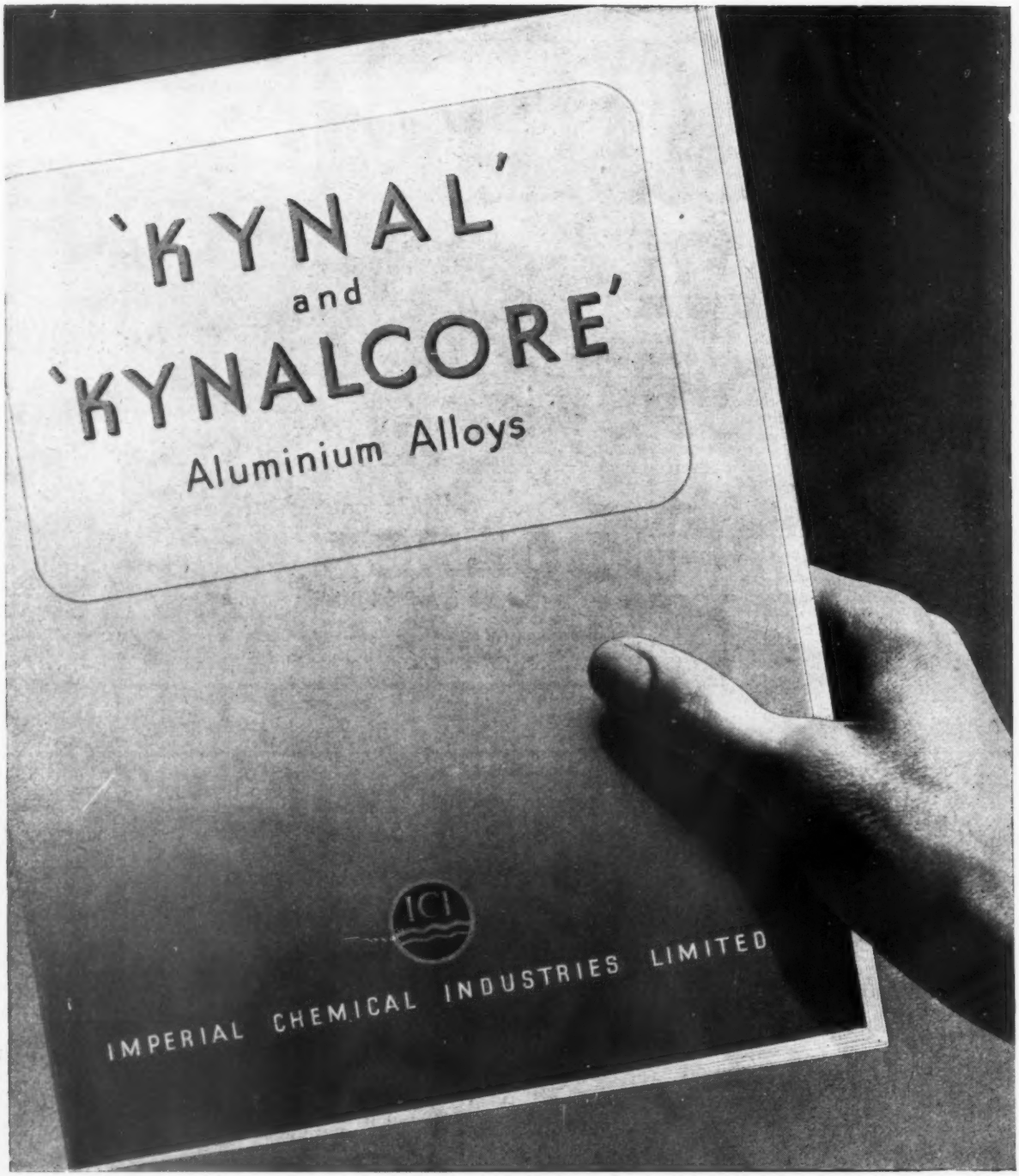
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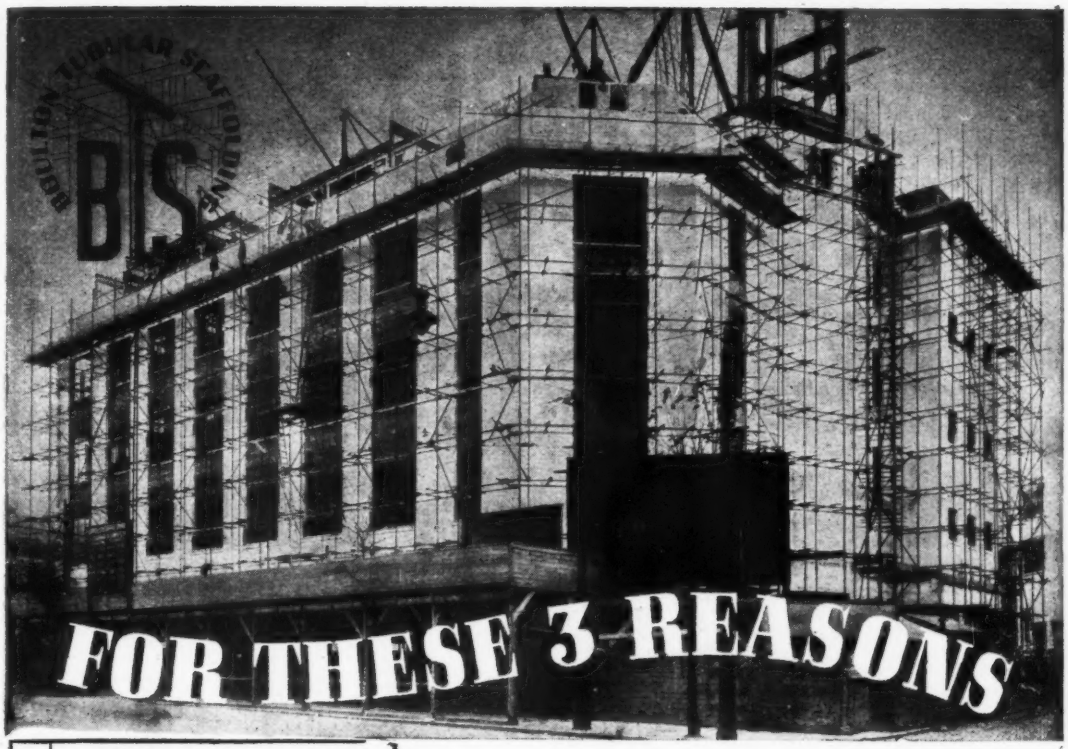
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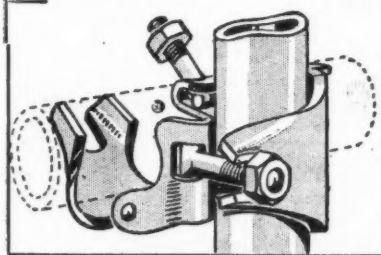


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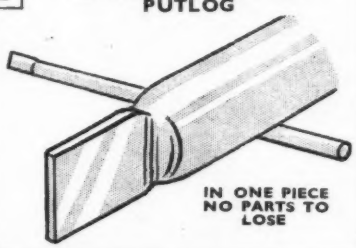
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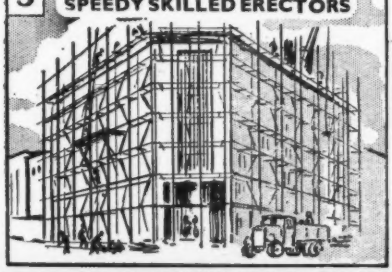
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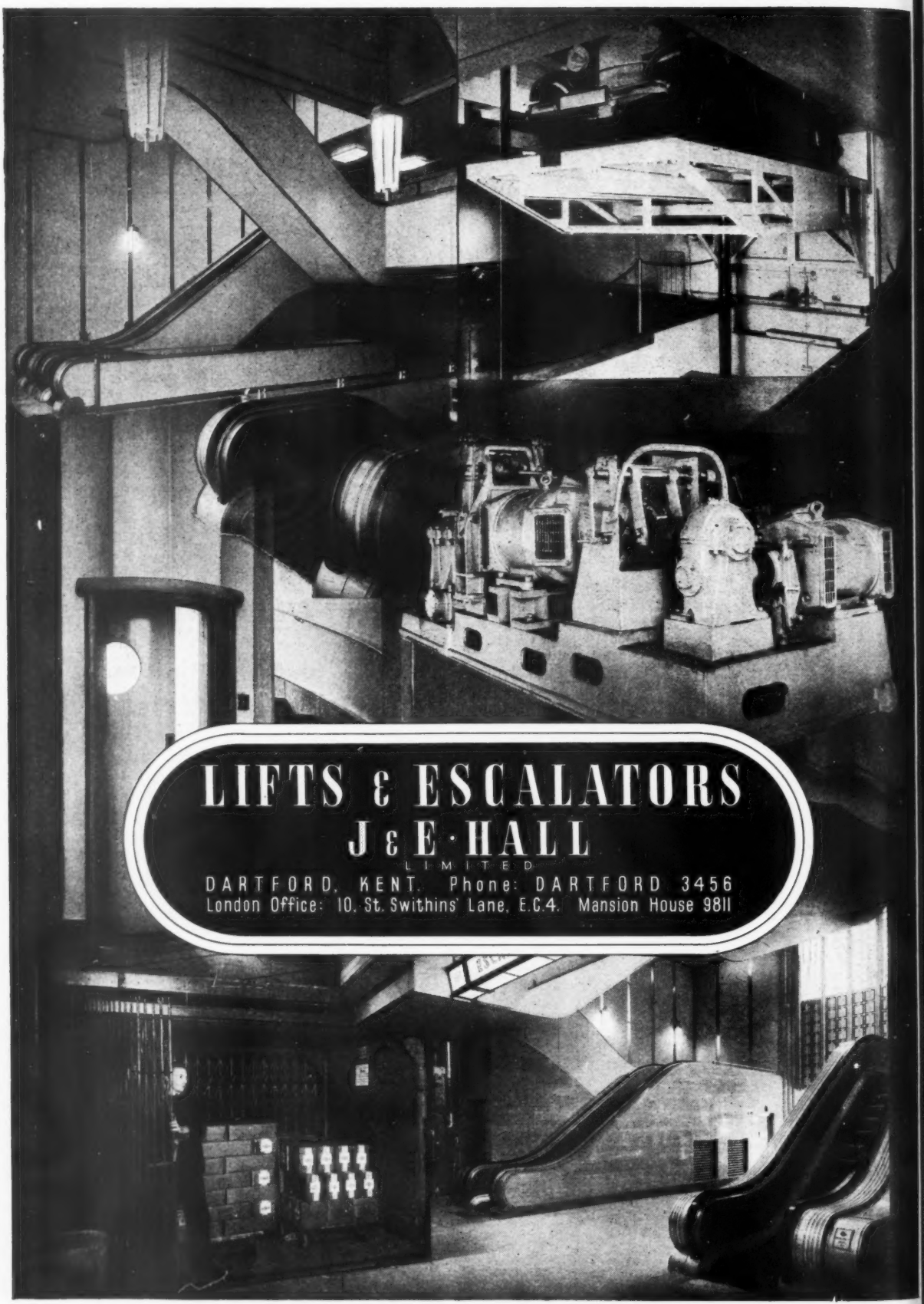
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$$U = 0{\cdot}20$$

(U = heat loss in B.Th.U./sq. ft./hour/°F.).

This represents a great improvement on the traditional brick house (Walls 0·34, Floor 0·35, Roof 0·56) and it is officially estimated that, in terms of fuel saving alone, the improvement would be *worth £80 per house.*

But these new standards can often be attained at little or no extra cost simply by using materials of high insulating value such as TenTesT, instead of those with relatively low thermal resistance such as plaster. The following tables show how simply traditional house construction can be brought up to the recommended standards by such means.

INSULATION OF TRADITIONAL HOUSING

Construction.	U.
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Tiles on battens, plaster ceiling	0·56
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Tiles on battens, boards and felt, ½-in. TenTesT ceiling	0·22
Tiles on battens on ½-in. TenTesT, ½-in. TenTesT ceiling	0·19
Tiles on battens and felt, ½-in. TenTesT on top of ceiling joists, ½-in. TenTesT ceiling	0·17*
WALLS.	
11-in. ventilated cavity brick wall, plastered internally	0·34
11-in. sealed cavity brick wall, plastered internally	0·30
Ditto, lined with ½-in. TenTesT on battens instead of plaster	0·18
Ditto, but with 1-in. TenTesT	0·15
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1-in. nominal T. & G. boarding on joists, covered thin linoleum	0·35
Ditto, but with ½-in. TenTesT beneath floorboards	0·24
Ditto, but with 1-in. TenTesT	0·18
Ditto, but with two layers ½-in. TenTesT separated by an air space	0·15

*With all the insulation at ceiling level, pipes and tanks in the roof void will need separate insulation. With a suitable part of the insulation at rafter level this becomes unnecessary.

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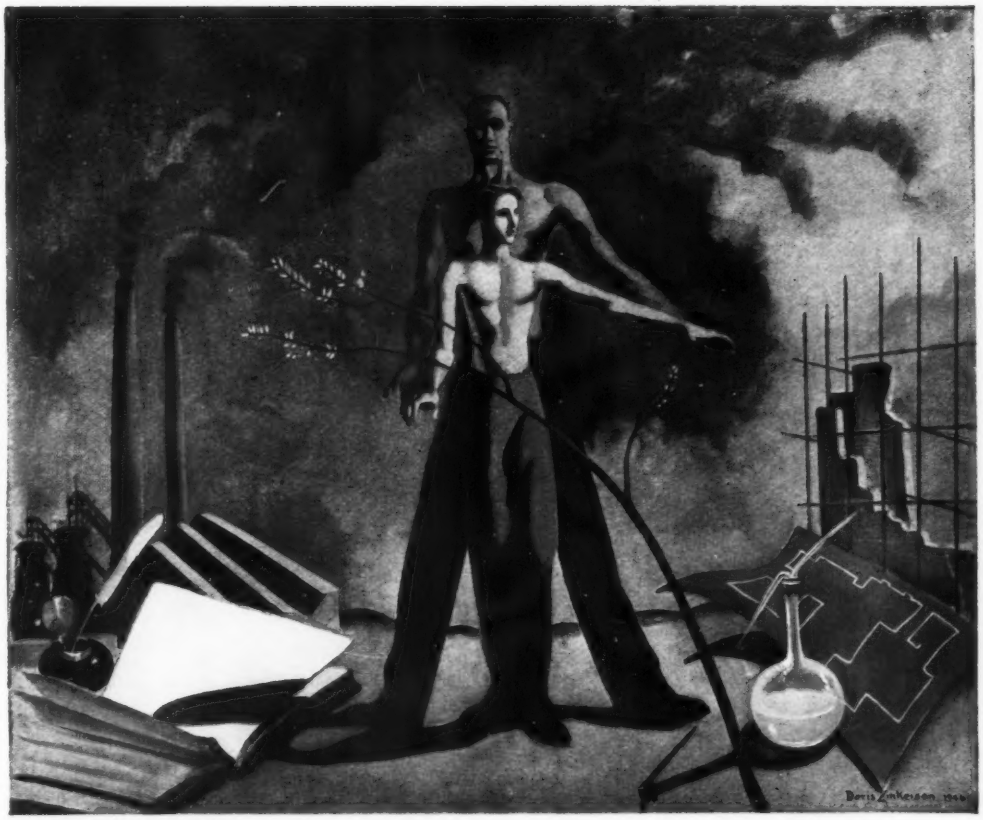
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Painting by Doris Zinkeisen

This Present Age . . 11

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POTTERY THROUGH THE AGES · NO. 5



PHOENICIAN TRADERS AND THEIR INFLUENCE

The Phoenicians were the first great sea-faring traders of antiquity. Solomon's ally, Hiram of Tyre, ruled at the time of their greatest fame, about 950 B.C., and they are referred to in the Old Testament as "Canaanites." Thanks largely to them, the countries of the Western Mediterranean were first introduced to the cultural and artistic achievements of Egypt and the Near East. Phoenician ships traversed all the known seas, some even visiting Cornwall in quest of tin. Colonies were planted among the islands and along the shores of the Mediterranean, including Cyprus, Rhodes, Sardinia, Western Sicily and Carthage.

These traders played an important part in ceramic development by introducing pottery from the great established centres of the craft to other districts where the imported wares inspired local potters to improve their technique. Early "Phoenician" pottery made in Cyprus, for example, shows distinct Assyrian and Egyptian influences and some of the later Cypriot wares actually foreshadow shapes which the Greek potters of Corinth and Athens were afterwards to perfect and invest with a fame which established a classical tradition.

Pottery and brick-making are mentioned several times in the Hebrew scriptures. There was a guild of potters at Jerusalem and one of the gates was named after them. The use of the wheel was known to the ancient Jews and provided the prophet, Jeremiah, with his striking word-picture of the Divine Potter:

"*Then I went down to the potter's house, and, behold, he wrought a work on the wheels. And the vessel that he made of clay was marred in the hand of the potter: so he made it again another vessel, as seemed good to the potter to make it. Then the word of the Lord came to me, saying, O house of Israel, cannot I do with you as this potter? saith the Lord. Behold, as the clay is in the potter's hand, so are ye in Mine hand.*"

The Jewish potters confined their efforts mainly to making simple domestic wares. For most of their decorated pottery they probably relied on the Phoenicians and Egyptians. The potter's art never attained an eminent position in Palestine — being overshadowed by the more ornate works produced in precious or semi-precious stones and metals.

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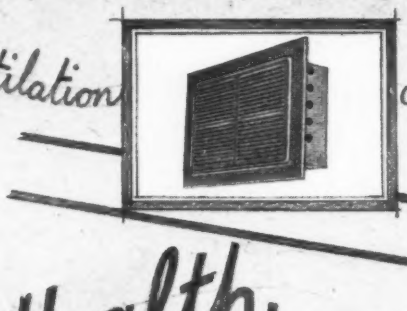
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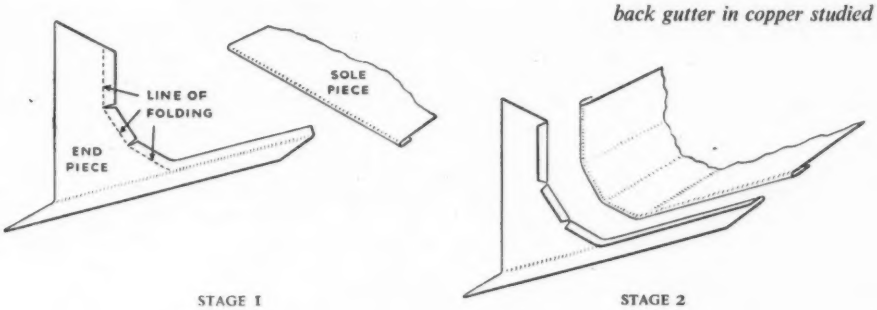
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We could swear that if you were to write down the properties you wanted in a flashing material, what you wrote would be a pretty close description of copper.

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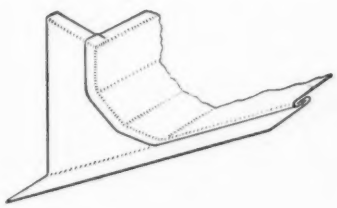
After all—take durability. You will not find a more durable material than copper. Or efficiency? What is more secure against wind and weather? Economy? Well, 26 s.w.g., for any flashing, costs less than 17.3d. per square foot, even now. Ease of installation? This is so important, it calls for an actual example :—

A qualified plumber who had never before made a welted chimney back gutter in copper studied this sketch and made one in twenty minutes.



STAGE 1 STAGE 2 STAGE 3

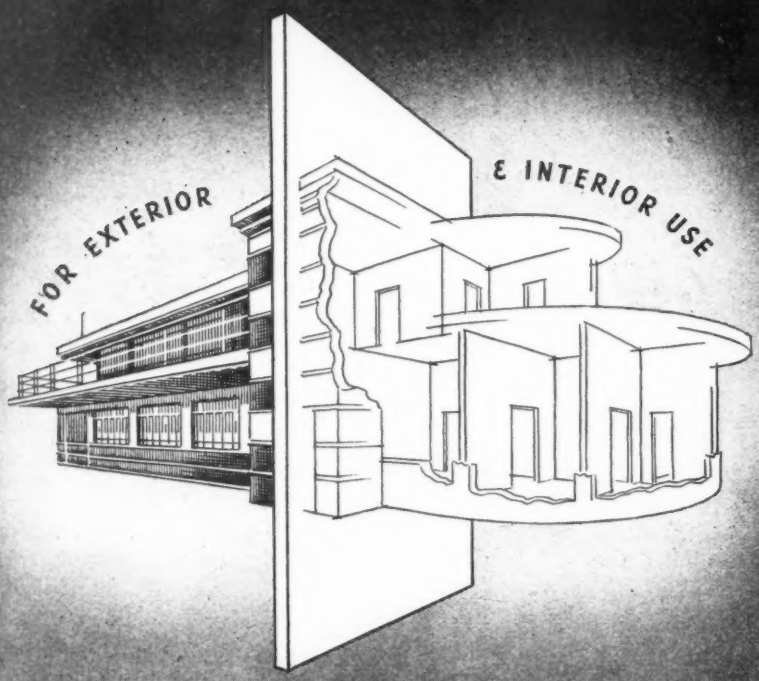
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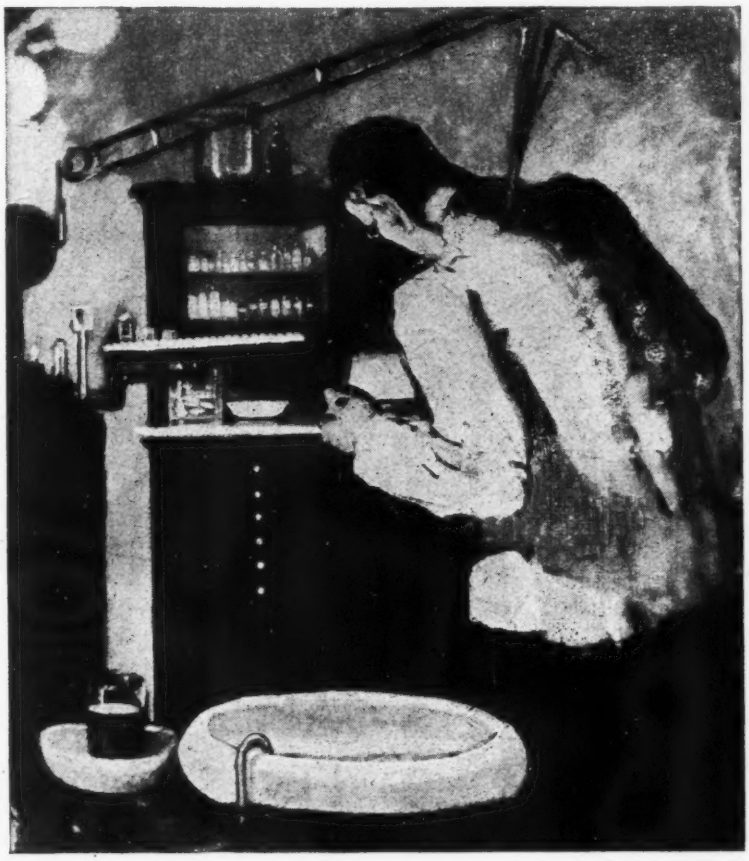
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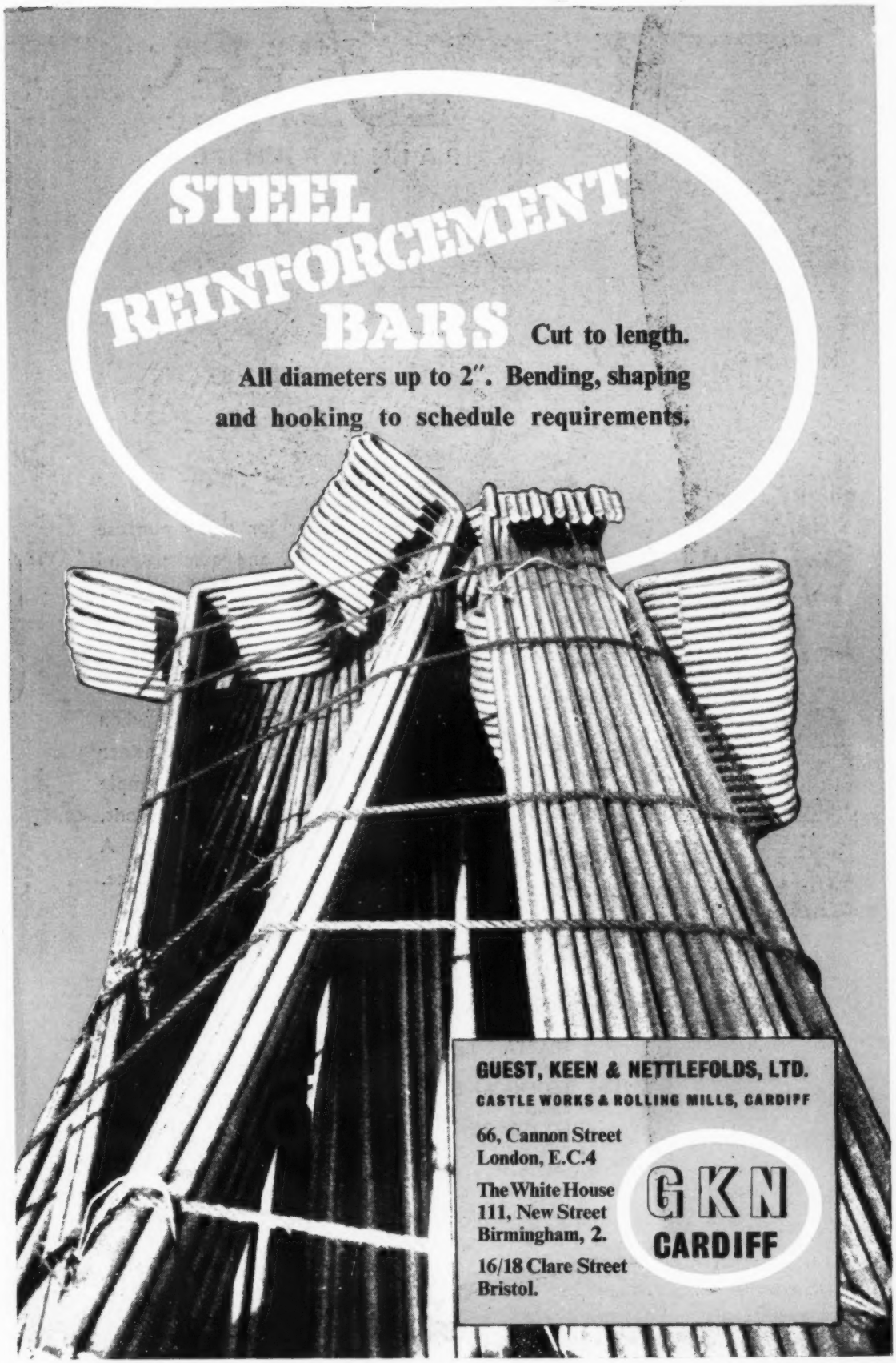
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Flats under construction (1946) for the L.C.C. at Gascoyne Road, Hackney. Photograph: Helmut Gernsheim

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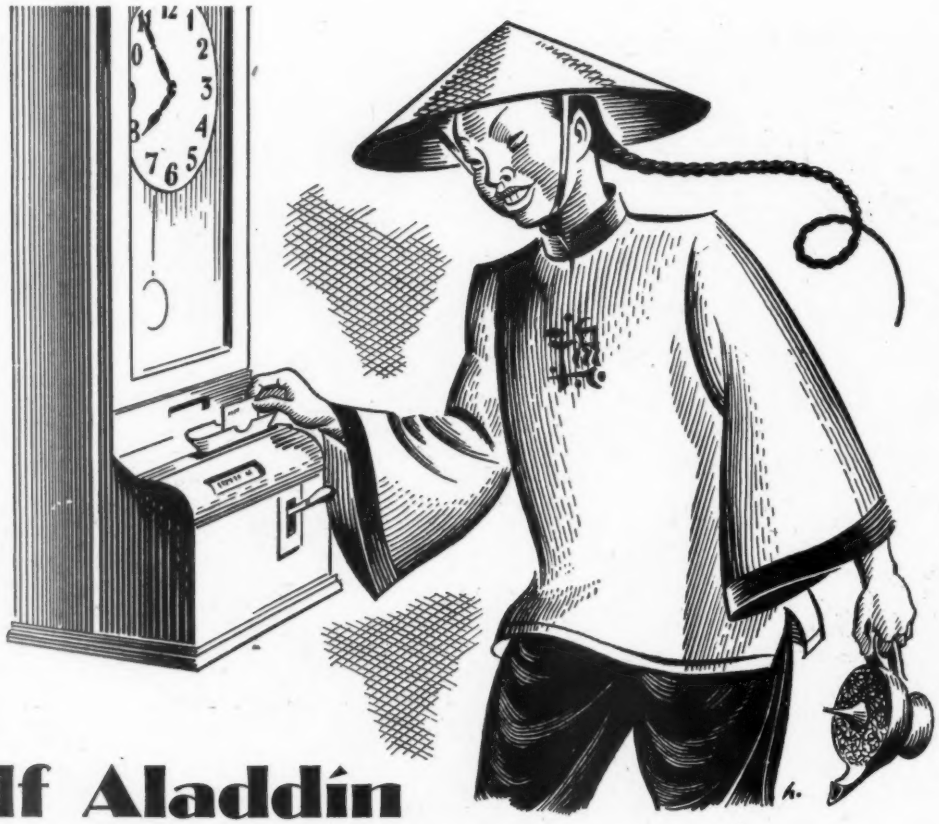


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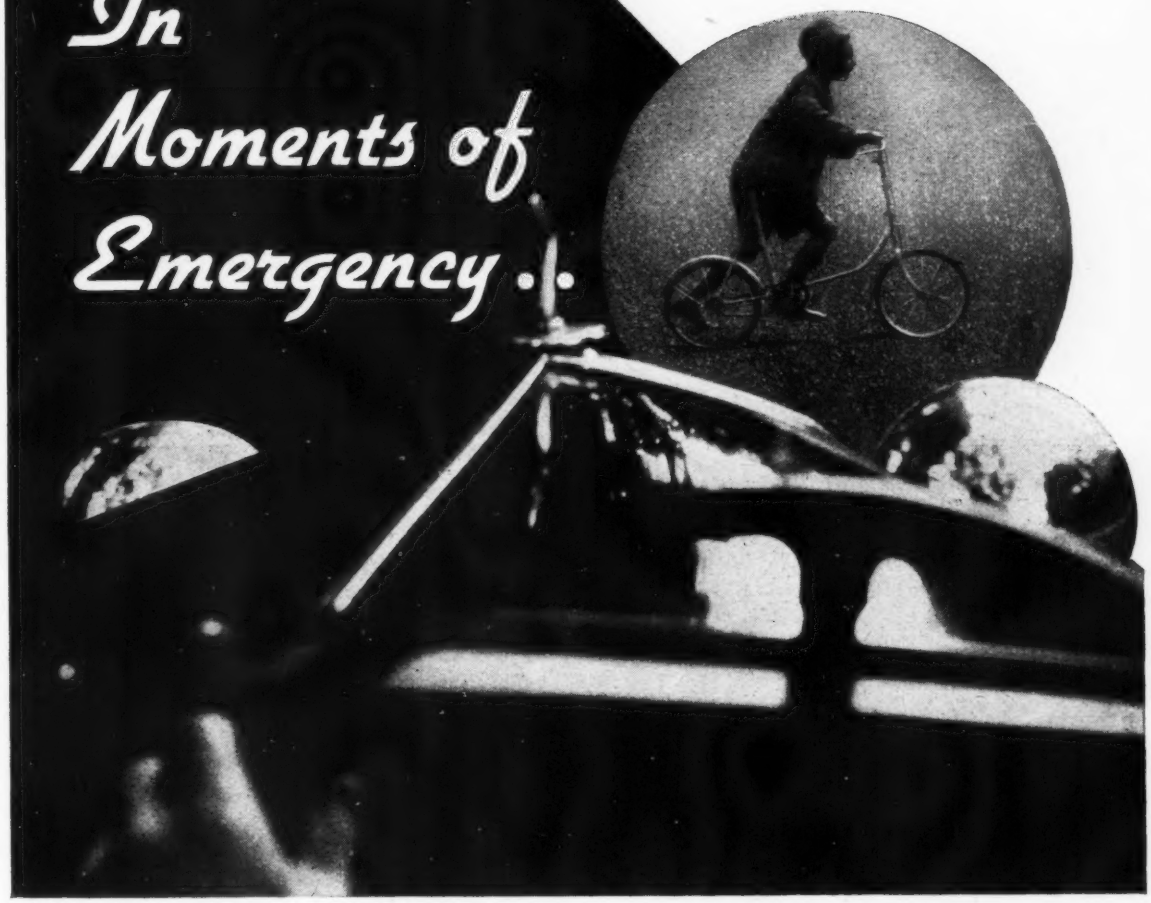
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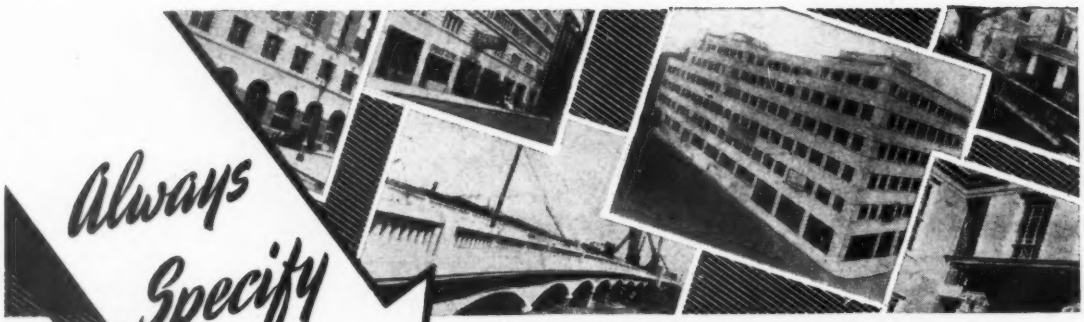
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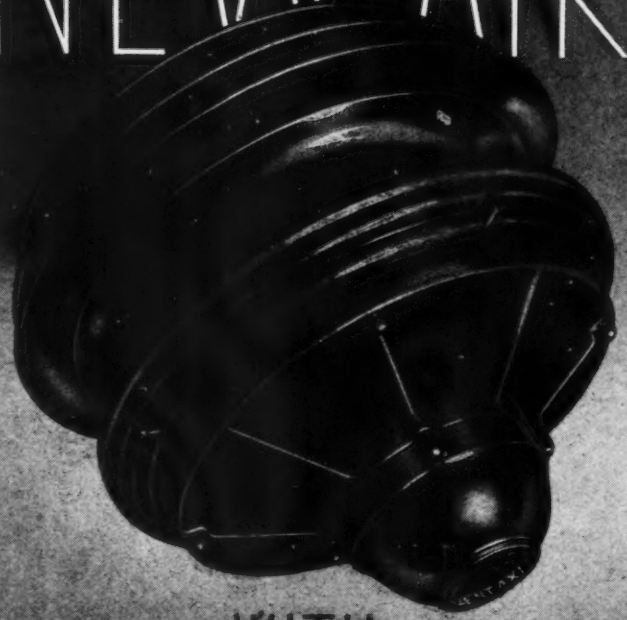
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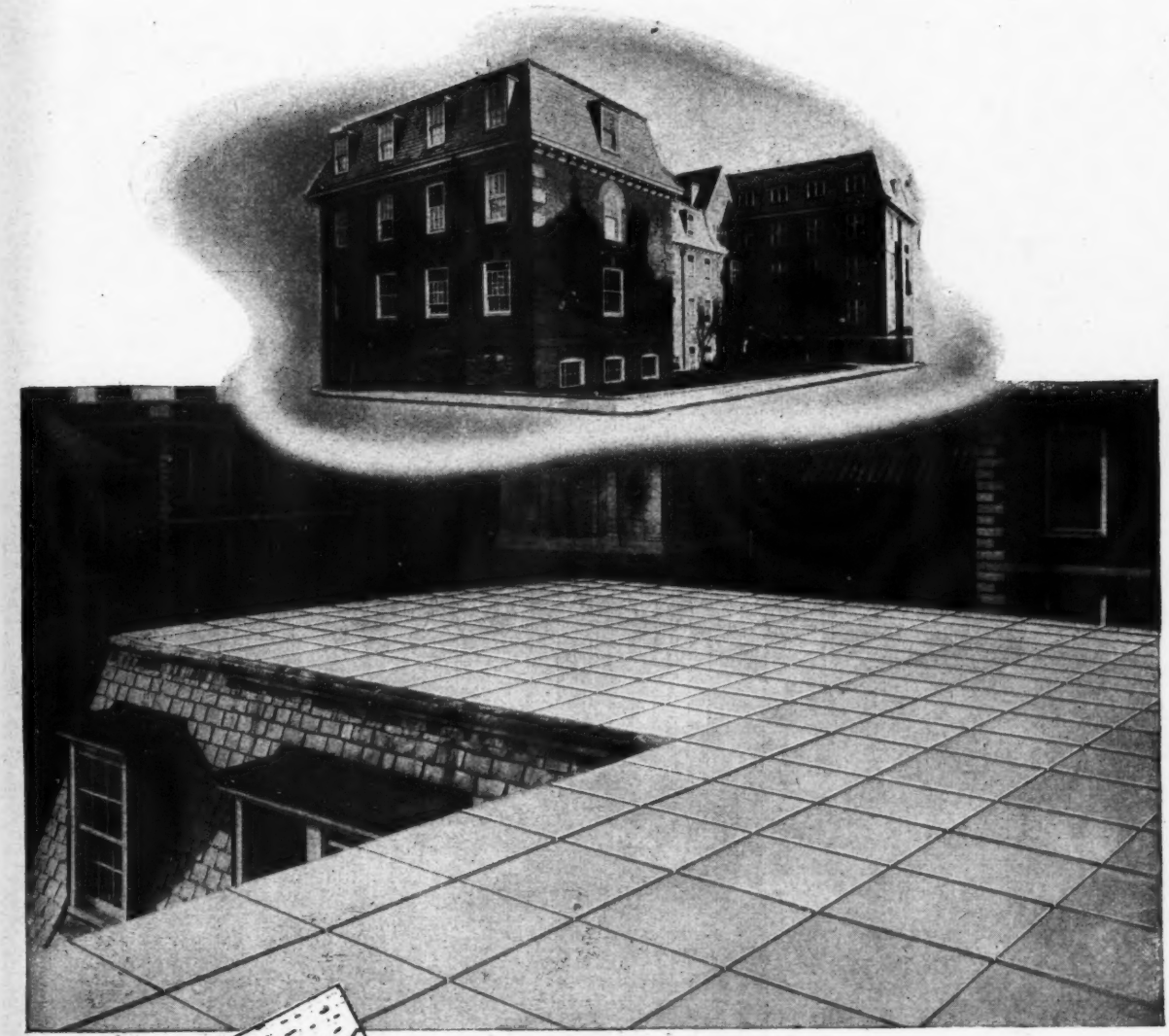
It comes as a bit of a shock to read in a newspaper column headed "Secret Service News" that one of our allies has developed a process for making bricks from clinker and cement and that this idea may assist our own reconstruction programmes. Sutcliffe Speakman make no secret of the fact that their Emperor Presses have been making similar bricks for a long time now. In fact, people who want to know more about making bricks from waste materials should put their secret service agents on our track.

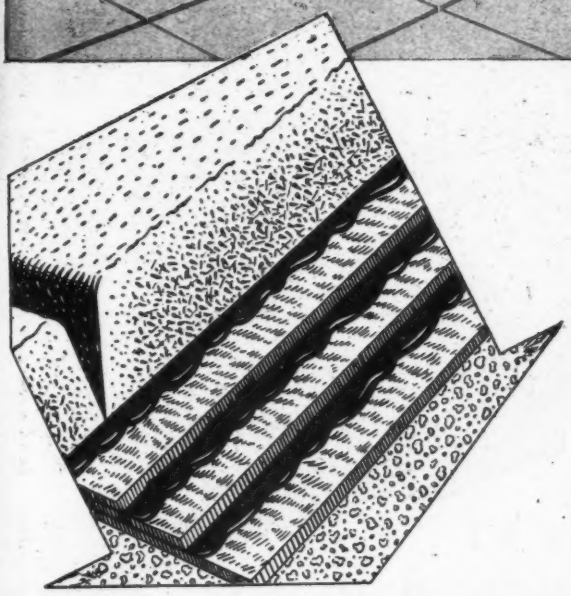
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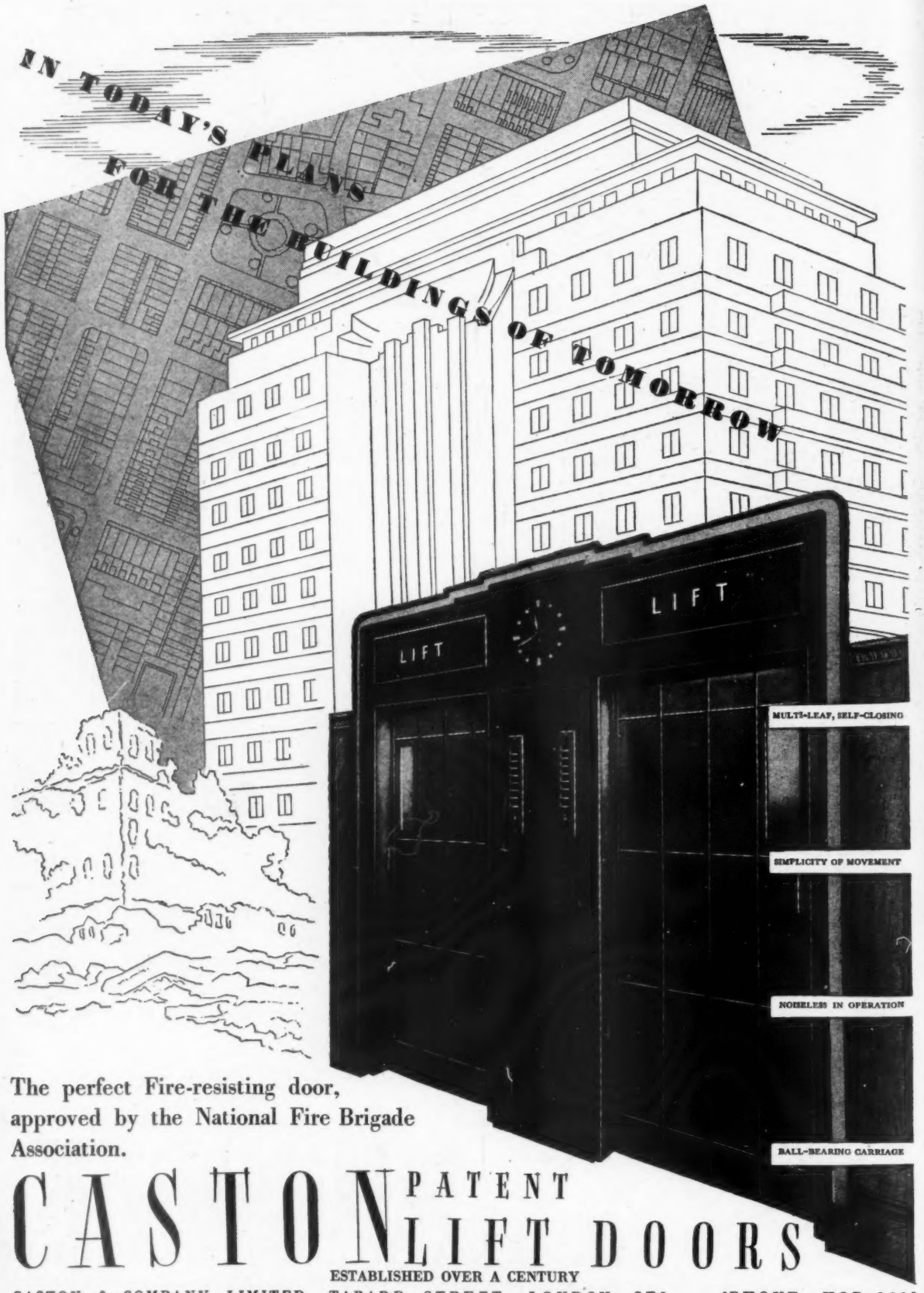
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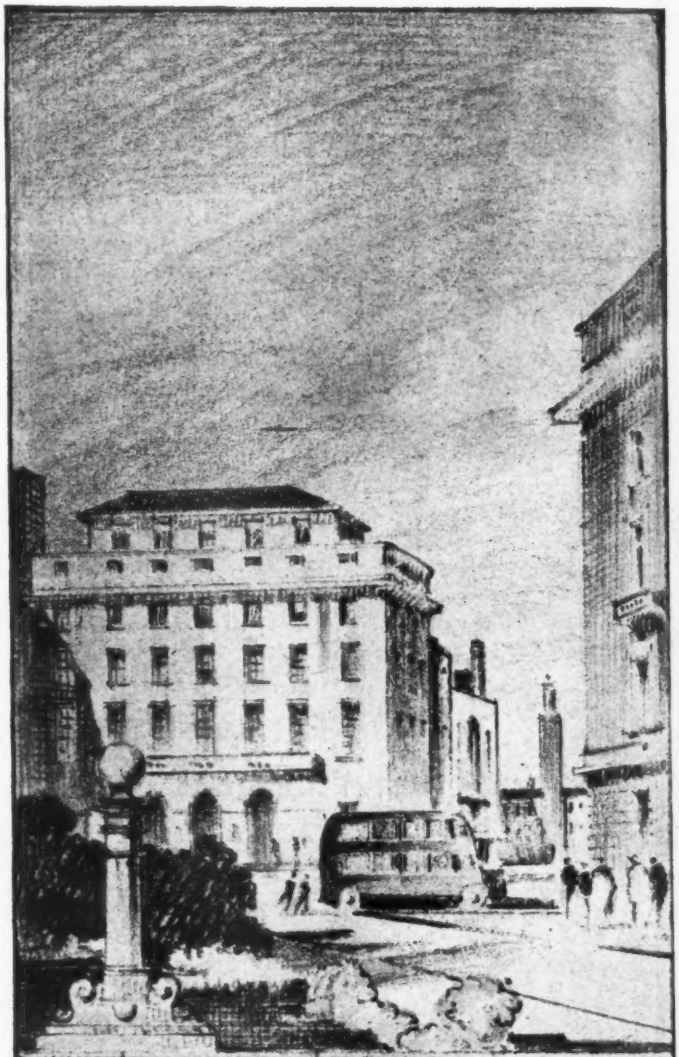
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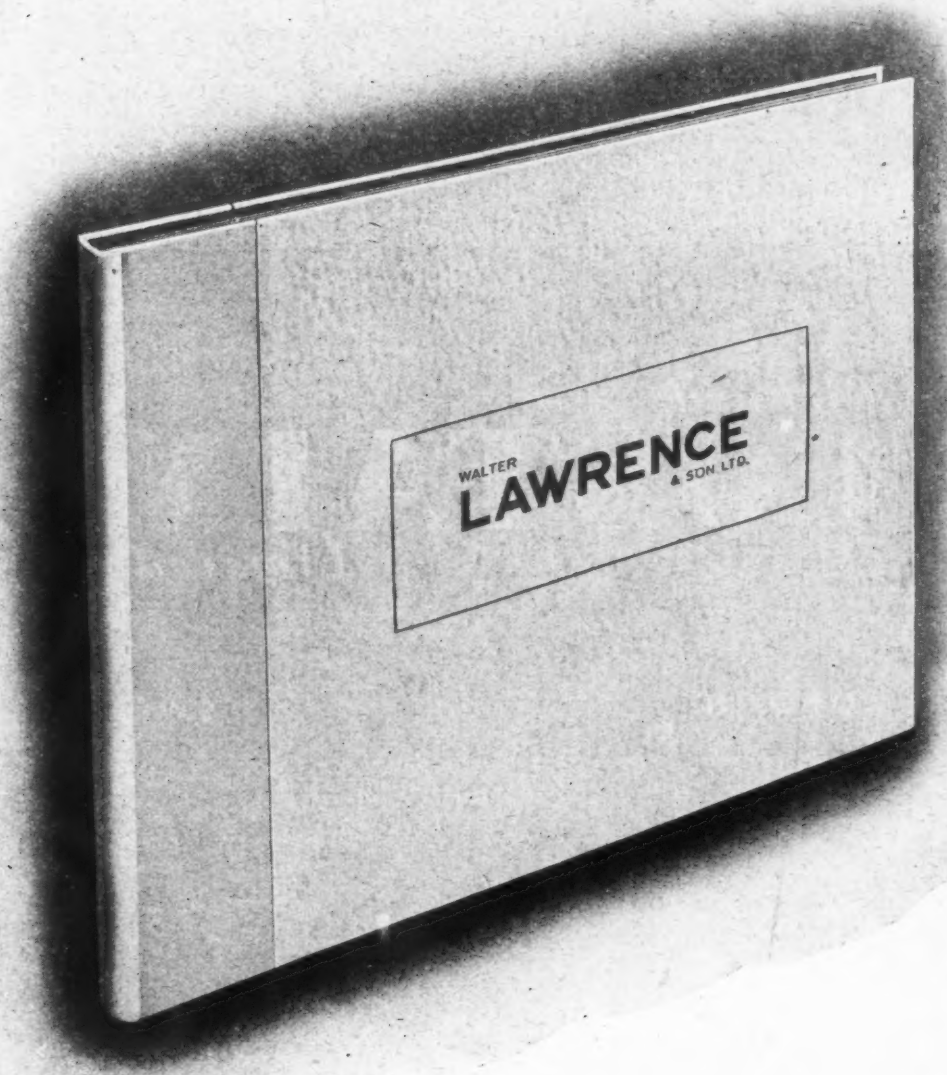


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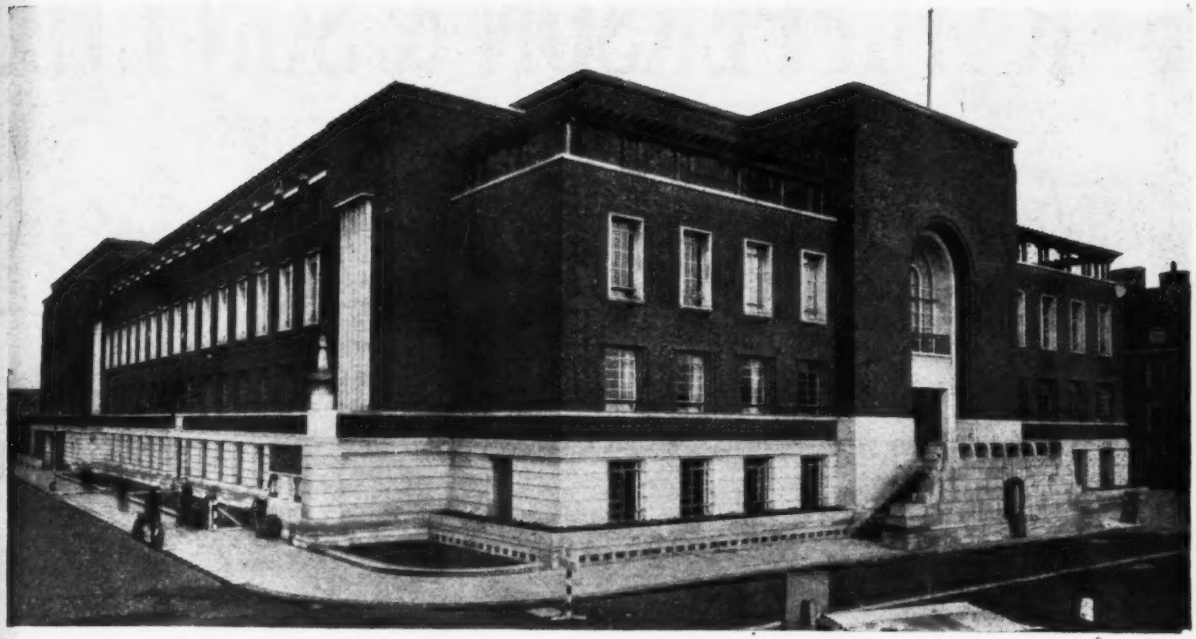
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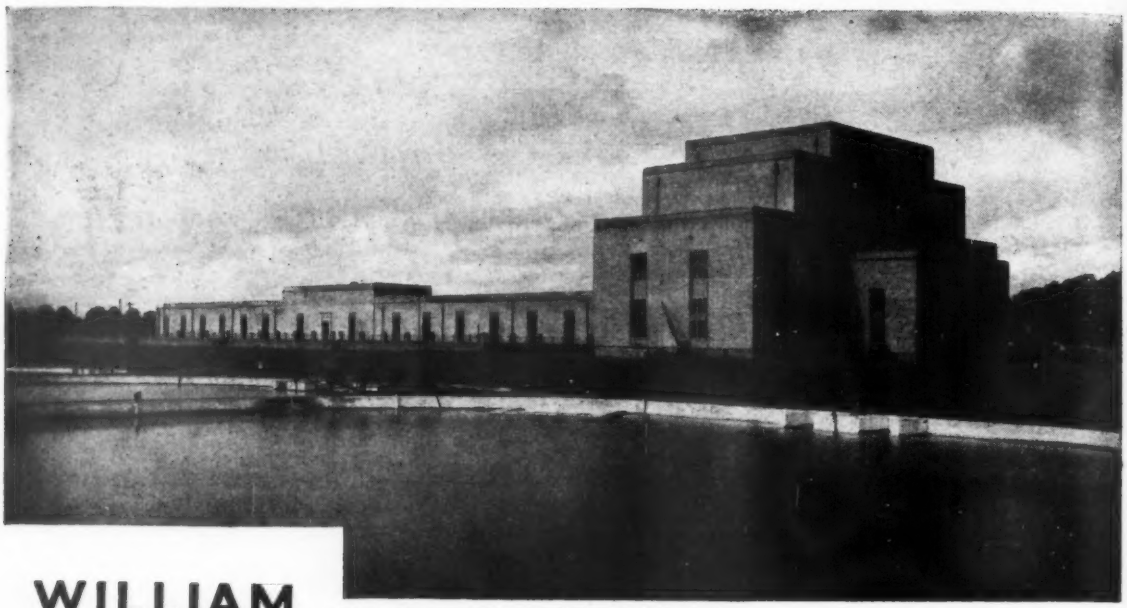
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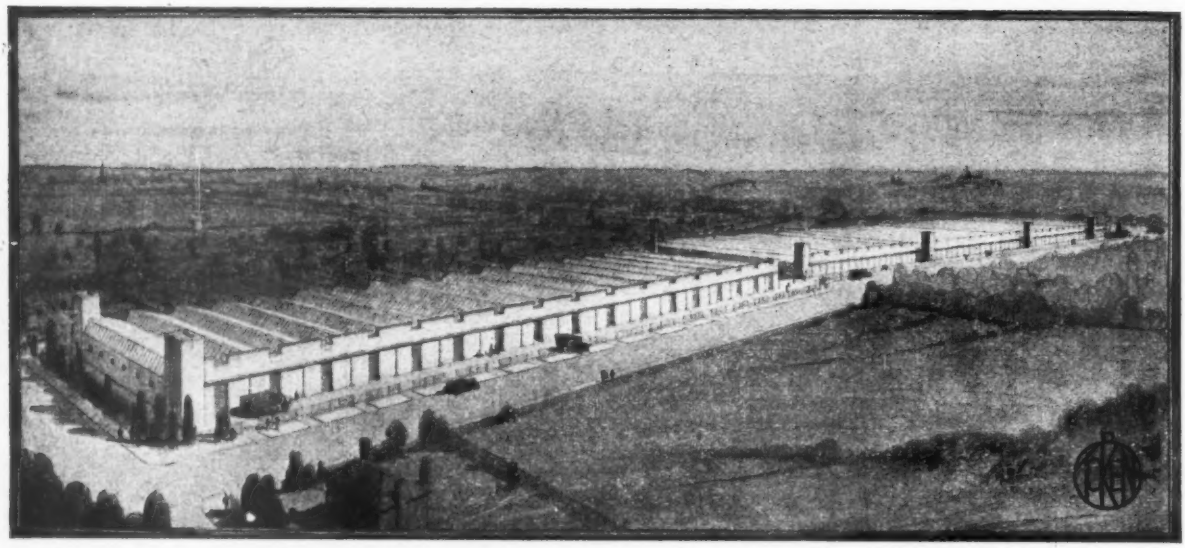
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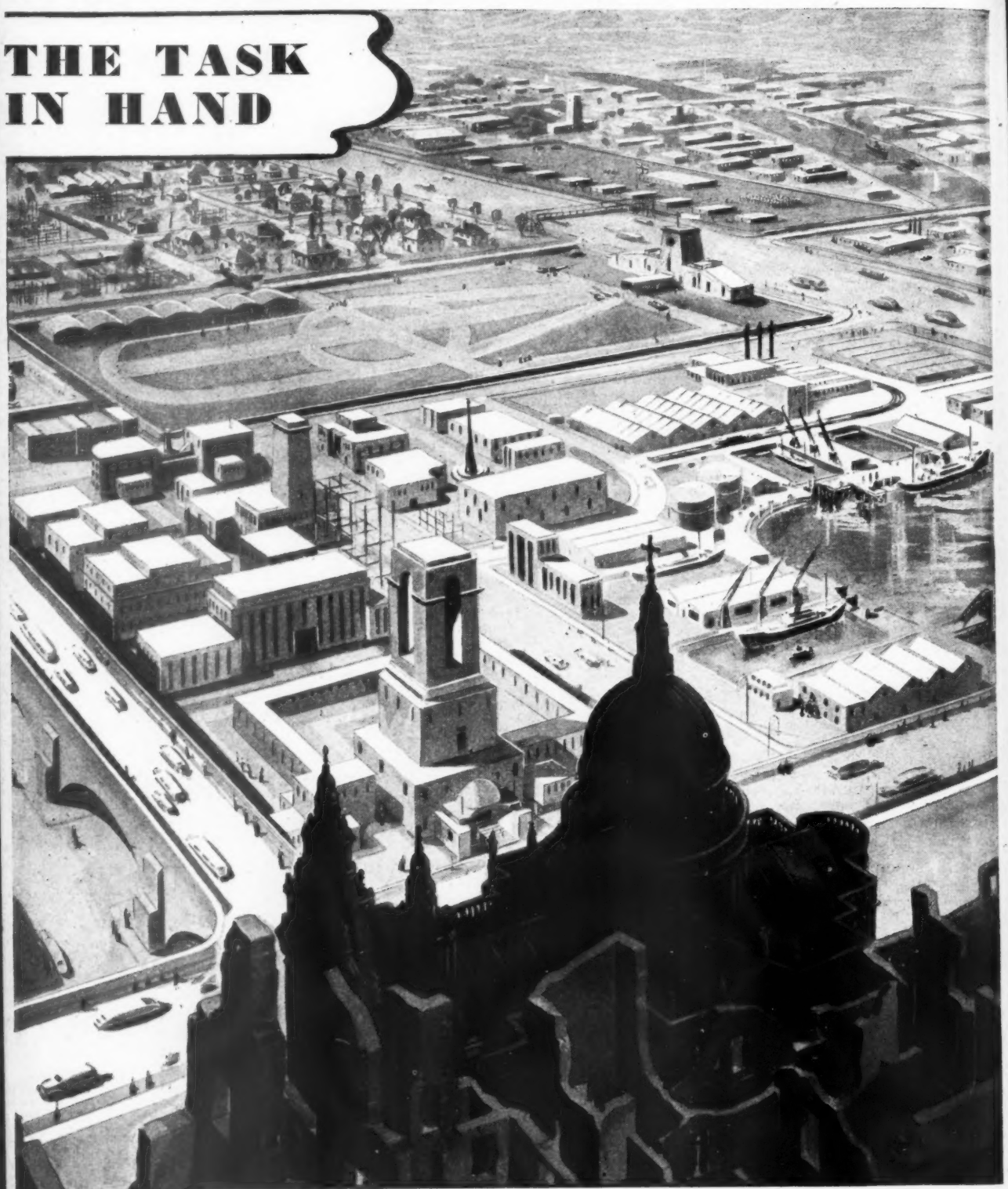
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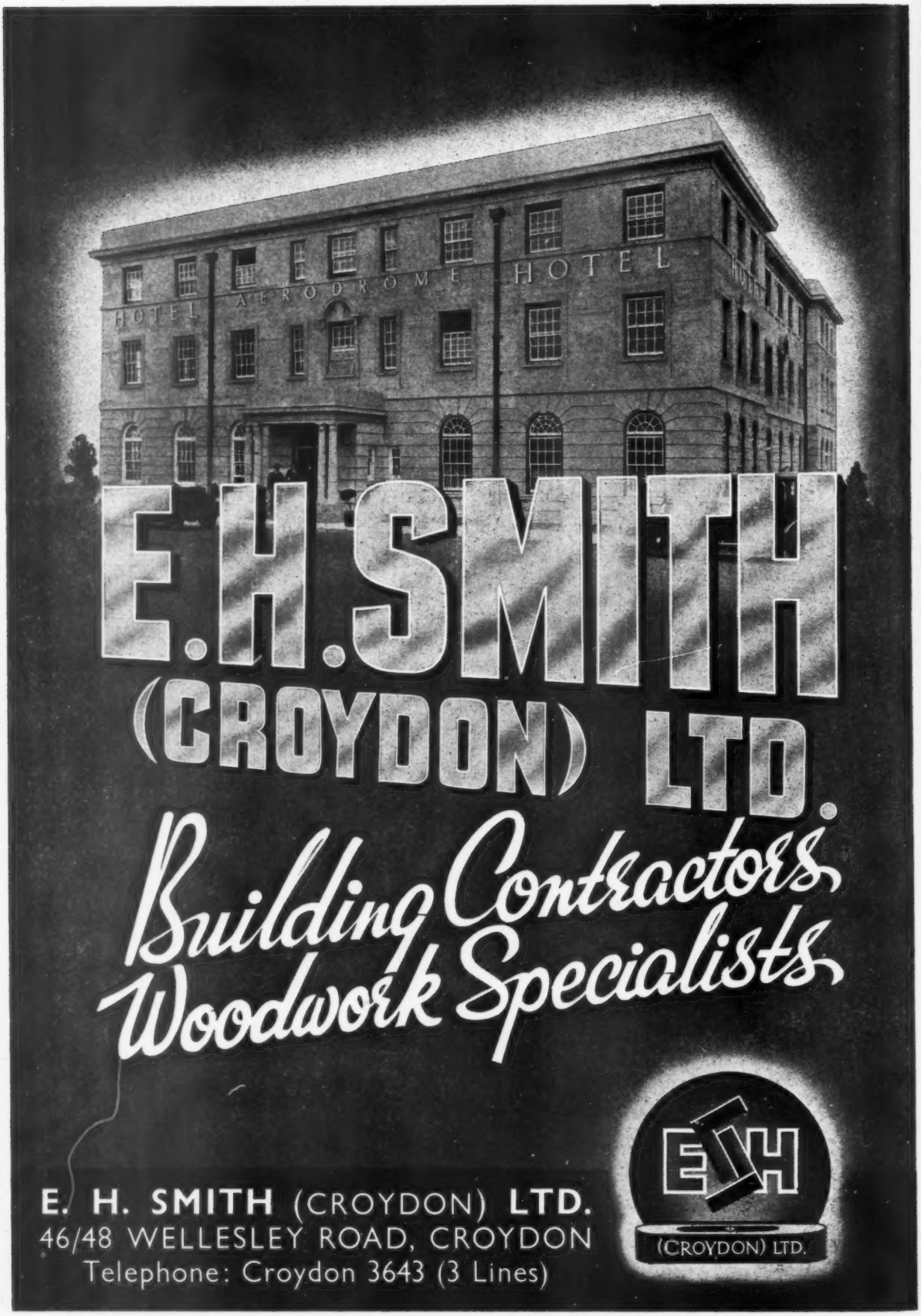
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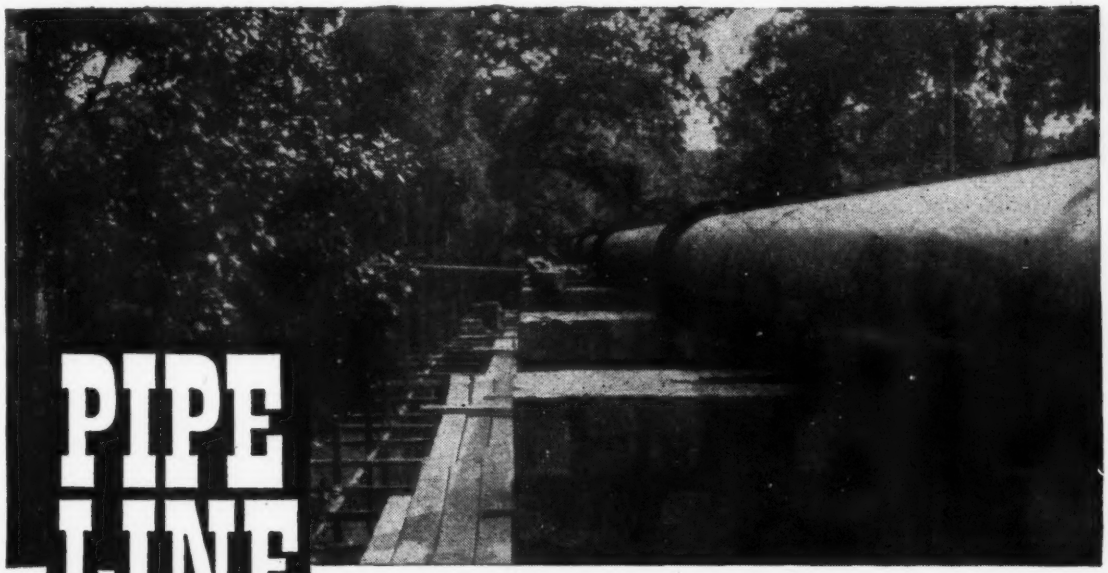
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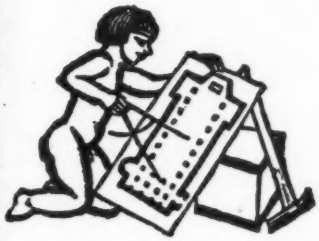
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In common with every other periodical this JOURNAL *is rationed to a small part of its pre-war needs of paper. Thus a balance has to be struck between circulation and number of pages. We regret that unless a reader is a subscriber we cannot guarantee that he will get a copy of the* JOURNAL. *Newsagents now cannot supply the* JOURNAL *except to a "firm order." Subscription rates: by post in the U.K. or abroad, £1 15s. 0d. per annum. Single copies, 9d.; post free, 11d. Special numbers are included in subscription; single copies 1s. 6d.; post free, 1s. 9d. Back numbers more than 12 months old (when available), double price. Volumes can be bound complete with index, in cloth cases, for 15s. each; carriage 1s. extra. Goods advertised in the* JOURNAL *and made of raw material now in short supply, are not necessarily available for export.*



DIARY FOR JANUARY FEBRUARY AND MARCH

Titles of exhibitions, lectures and papers are printed in italics. In the case of papers and lectures the authors' names come first.

GLASGOW. A. N. Allcock. *Development of Refrigeration.* At the Institution of Engineers and Shipbuilders in Scotland, 39, Elmbank Crescent, Glasgow, C.2. 7.30 p.m. (Sponsor, IHVE, Scottish Branch.) JAN. 28

LONDON. *Exhibition of the King's Pictures.* At the Royal Academy, Piccadilly, W. About 500 paintings in the Royal Collection, selected from all the Palaces in which the collection is permanently kept. Includes a large number of works not normally accessible to the public. Weekdays, 10 a.m. to 7 p.m. Sundays, 2 p.m. to 7 p.m. Admission 1s. 6d. Until MAR. 16

Building Science. An exhibition of science applied to modern building construction. At Caxton Hall, Westminster, S.W.1. 10 a.m. to 7 p.m. Papers read each evening at 7.30. Admission free. (Organised by the Incorporated Association of Architects and Surveyors and the Department of Scientific and Industrial Research.) Until JAN. 18

Society of Graphic Art. 21st Exhibition. At the RWS Galleries, 26, Conduit Street, W.1. 10 a.m. to 5 p.m. (Sponsor, SGA.) Until JAN. 18

British Legion Exhibition. At Central Hall, Westminster, S.W.1. 10 a.m. till 10 p.m. (Sponsor, BL.) Until JAN. 26

National Federation of Building Trades Employers Annual Dinner and Dance. At the Dorchester Hotel, Park Lane, W.1. (Sponsor, NFBTE.) 6.45 p.m. JAN. 29

Society of Women Artists. 86th Exhibition of Pictures, Sculpture and Crafts. At Guildhall, E.C.2. 10 a.m. to 5 p.m., except Saturdays. (Sponsor, Society of Women Artists.) UNTIL JAN. 29

Rural Building Materials Exhibition. At the Building Centre, 9, Conduit Street, W.1. Exhibits will include 25 panels of hand-made bricks from various counties, examples of stone walling, rubble Bath limestone, Kent flintwork, repatching straw thatching, and slates from Westmorland, Wales and Cornwall. (Sponsor, Rural Industries Bureau.) 10 a.m. to 5 p.m. Until FEB. 15

H. A. Thomas. *Industrial Applications of Electronic Techniques.* At the Institution of Electrical Engineers, Savoy Place, Victoria Embankment, W.C.2. (Sponsor, IEE.) 5.30 p.m. JAN. 16

P. J. Marshall. *Planning and the Public.* At the Association for Planning and Regional Reconstruction, 34, Gordon Square, W.C.1. Chairman, D. E. E. Gibson. (Sponsor APRR.) 6 p.m. JAN. 16

Ethiopian Exhibition of Arts, Crafts, Industry and Education. At Foyles Bookshop, 111, Charing Cross Road, W.C.2. 9 a.m. to 6 p.m. (Sponsor, Princess Tsahai Memorial Hospital Council.) Sir Patrick Abercrombie will open the exhibition at 3 p.m. on January 20. JAN. 20-FEB. 4

R. Coppock. General Secretary, National Federation of Building Trade Operatives. *Building the Houses.* At the Housing Centre, 13, Suffolk Street, S.W.1. 1.15 p.m. (Sponsor, HC.) JAN. 21

E. H. Nevard. *The Stress Grading of Timber and Its Influence on Structural Design.* At the Institution of Structural Engineers, 11, Upper Belgrave Street, S.W.1. 6 p.m. (Sponsor, ISE.) JAN. 23

John Gloag. *Industrial Design.* At the Planning Centre, 28, King Street, Covent Garden, W.C.2. Buffet lunch, 12.45 p.m. Talk, 1.15 p.m. (Sponsor, TCPA.) JAN. 23

Professor W. G. Holford. *New Towns.* At the RIBA, 66, Portland Place, W.1. 6 p.m. (Sponsor, RIBA.) JAN. 28

Stanley Mayne, of the Ministry of Health. *The Government's Housing Programme.* At the Housing Centre, 13, Suffolk Street, S.W.1. 1.15 p.m. (Sponsors, HC.) JAN. 28

Howard Robertson. *Design of Interiors.* At the AA, 34-36, Bedford Square, W.C.1. (Sponsor, AA.) 6 p.m. JAN. 29

G. Grenfell Baines and Raglan Squire. *Partnership and Profit Sharing.* Third of the informal lectures on Office Organization. At the RIBA, 66, Portland Place, W.1. Chairman, H. V. Lobb. Grenfell Baines will deal with working relationships in the profession and will discuss the question of rewards, recognition, and the opportunities and responsibilities which arise from certain types of group sharing. He will also give a brief account of the measures adopted for carrying out the aims and ideals of his organization. Raglan Squire will talk about the relationship of partners and associate architects in a firm, and of the advantages and disadvantages to be derived from abbreviated names for architectural firms. He will also deal with the question of the distribution of profits and staff welfare as well as with the relation which exists between clients and members of the staff. Light refreshments will be available at a small charge from 6.0-6.30 p.m. for those coming direct from their offices. Lecture, 6.30 p.m. (Sponsor, RIBA.) FEB. 4

NEWS

THURSDAY, January 16, 1947
No. 2712 VOL. 105

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Information Centre Index, 1946 77

Though no feature in the JOURNAL *is without value for someone, there are often good reasons why certain news calls for special emphasis. The* JOURNAL'S *starring system is designed to give this emphasis, but without prejudice to the unstarred items which are often no less important.*

★ *means spare a second for this, it will probably be worth it.*

★★ *means important news, for reasons which may or may not be obvious.*

Any features marked with more than two stars is very big building news indeed.

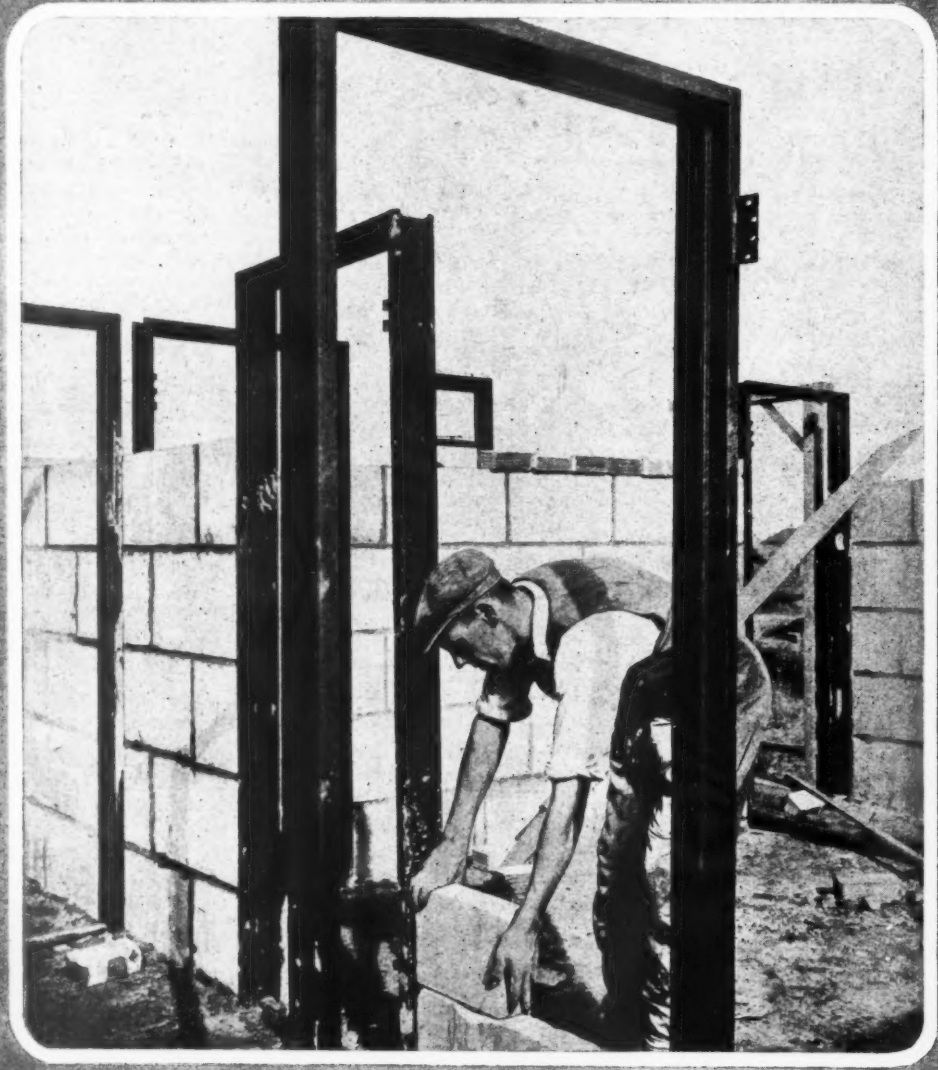
★★

Mr. Wallace K. Harrison, the American architect who was joint designer of the Rockefeller Centre of New York, has been chosen to supervise the design and construction of the permanent HEADQUARTERS OF THE UNITED NATIONS in New York.

The producers of foamed slag aggregate have, in collaboration, formed the FOAMED SLAG PRODUCERS FEDERATION.

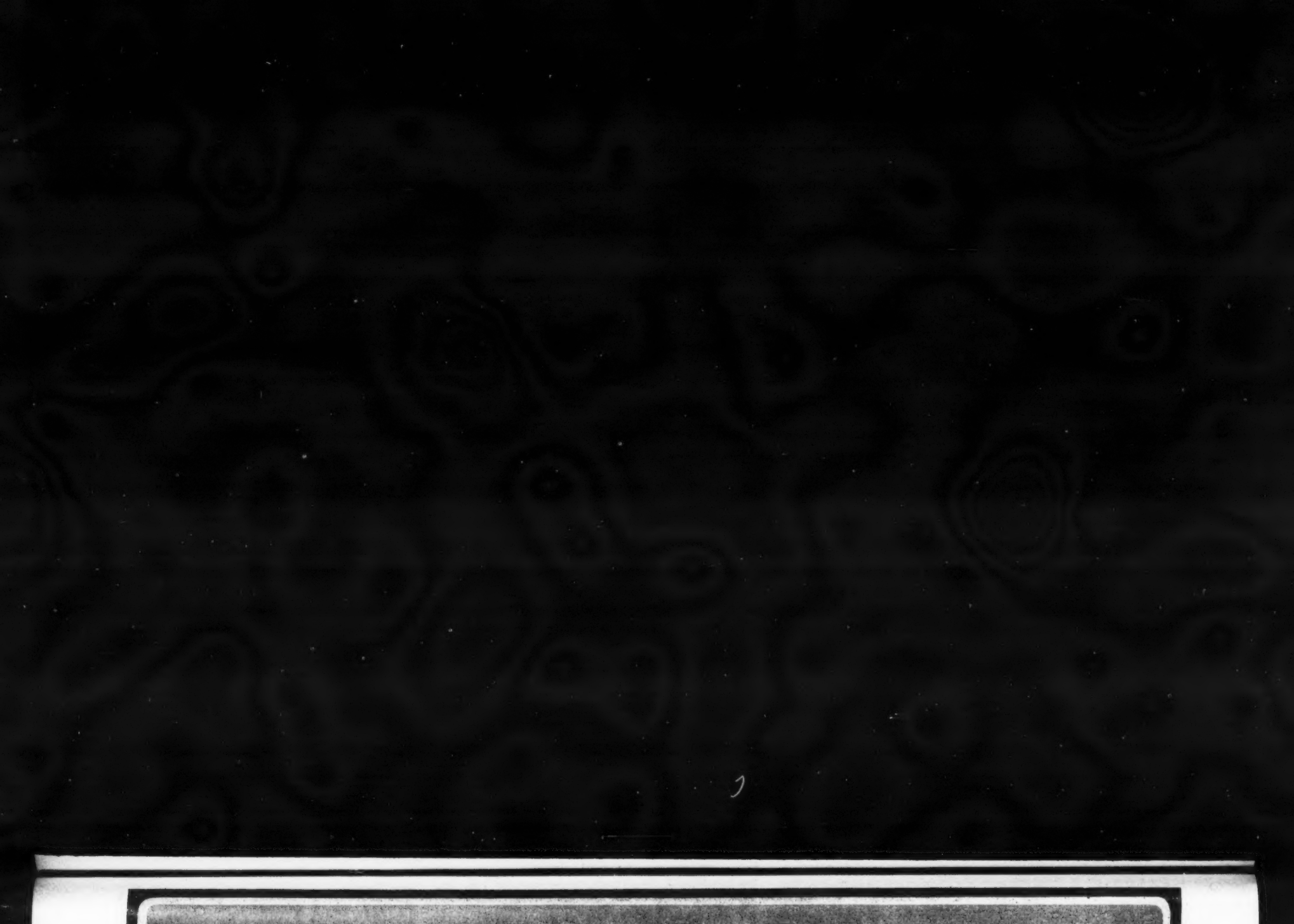
The Federation will act as the technical consultant on behalf of its members and will be available to give advice to users of foamed slag on its various methods of application. It will, at the same time, conduct research into all branches of construction in which foamed slag can be used to advantage. The founder members of the Federation are the five producers: Appleby-Frodingham Steel Co., Scunthorpe, Lincs.; Clugston Staveley Ltd., Staveley, near Chesterfield; Slag Aggregates Ltd., Santon, Scunthorpe, Lincs.; Foamslag (Tees-side Production) Ltd., Normanby Iron Works, Middlesbrough; Foamslag (Scottish Production) Ltd., 65, Bath Street, Glasgow; and these Companies will retain their identity as producers and will sell through their own organisations. Mr. M. Gallai-Hatchard is General Manager of the Federation, whose offices are at 85-88, Grosvenor Gardens House, Grosvenor Gardens, London, S.W.1. (Tel.: Victoria 1485.)

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EDITORIAL NOTE: In this New Year issue we depart from our practice of summarising the work of the past year. We look, instead, into the future and fill the bulk of the issue with a wide selection of projects by many different architects of jobs that will eventually be carried out. Sir Charles Reilly contributes his traditional article but he, too, looks into the future in a critique of many of the projects illustrated. Astragal, however, summarises the past year, as usual, and the issue concludes with the annual index to Information Centre.

★★★

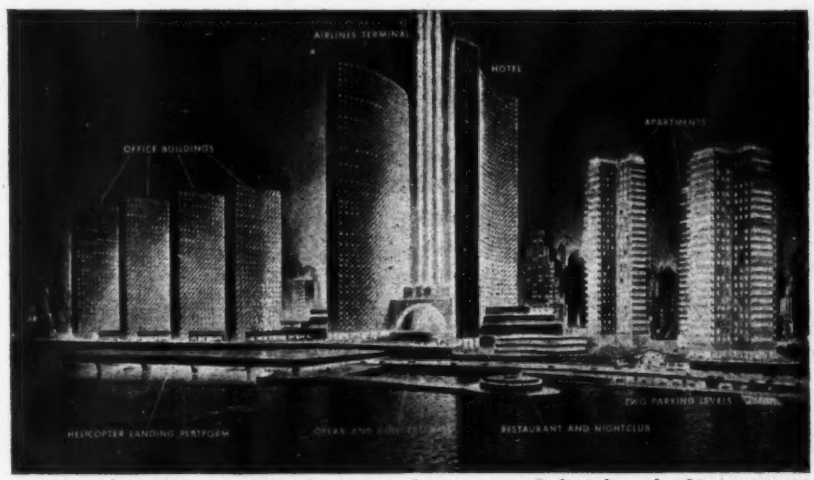
The design for the new COVENTRY CATHEDRAL has been abandoned and Sir Giles Gilbert Scott has resigned.

On January 10, the Bishop of Coventry, Dr.. Neville Gorton, and the Provost, the Very Rev. R. T. Howard, issued this statement:—New architectural plans for Coventry Cathedral will have to be made. The Royal Fine Art Commission are dissatisfied with the present plan. Sir Giles Gilbert Scott, who has been for some time considering what action he should take in view of the fact that it is unlikely he would be able actively to supervise the building, has resigned. But this does not in any way affect the decision of the Church of England and the Free Church authorities to set up, in conjunction with the new cathedral, a united Christian service centre and chapel of unity. A temporary chapel of unity already exists in the crypt of the ruined cathedral and this will continue to be the inspiration and the focus of the whole Cathedral scheme. The Cathedral Council met on January 8 to consider the Royal Fine Art Commission's recommendation and Sir Giles Scott's offer of resignation. It passed the following resolution:—The Cathedral Council expresses its deep sense of gratitude to Sir Giles Scott for his services and accepts with regret his resignation. In reaching this decision it notes that Sir Giles Scott now thinks it certain that he would be too old to superintend the actual building of the Cathedral, and being now faced with the necessity of a reconsideration of the Cathedral designs by the report of the Royal Fine Art Commission, the Cathedral Council regards this age factor as decisive. It should be noted that when Sir Giles Scott was appointed architect to Coventry Cathedral in 1942 it was agreed that, in view of his age, the position should be reviewed at the end of five years. The Cathedral Council also decided to appoint a Commission to hear evidence and to advise how best, having regard to all the circumstances, to provide: (*a*) a Cathedral church; (*b*) Cathedral ancillary building; (*c*) buildings for the Cathedral Christian service centre and chapel of unity. The Bishop is also asking the Commission to advise him on the future of Holy Trinity Church, Coventry, which stands near the Cathedral. The Commission will consist of the following members: Lord Harlech, chairman, the Bishop of Stafford, the Right Rev. L. D. Hammond, Sir Philip Morris, Vice-Chancellor of Bristol University, the Provost of Leicester, the Very Rev. H. R. Jones, and an architectural member yet to be appointed. The joint council of the Cathedral Christian service centre has accepted an invitation from the Cathedral Council to appoint a well-known Free Churchman to serve on the Commission in matters affecting the chapel of unity and the Christian centre, the statement concludes. The secretary of the Royal Fine Art Commission, writing to the Bishop of Coventry on December 19 last, said that after careful consideration the Commission found itself unable to approve the designs submitted to it, and recommended that they should be abandoned. The Commission would be very ready to offer any further help which may be desired. Sir Giles Scott, writing on January 2 to the Provost, said in the course of his letter:—"Owing to the slow progress that is being made with the housing problem, and in view of the fact that when this has been completed there will still remain an enormous amount of industrial, commercial, and restoration work essential for the national welfare, it seems clear that a considerable time must elapse before we could start building, especially as the building of the Cathedral will probably be looked upon by the authorities as a project having a very low priority. In view of this it seems certain that by the time building operations are permitted I shall, even if alive, have reached an age too great to undertake an important work of this kind. I have in consequence been somewhat concerned as to the steps I ought to take to deal with the situation." Continuing, Sir Giles Scott says that there is no doubt that a considerable difference of opinion about his design exists, but this is not surprising in view of the conflicting ideas that exist between the modernist and traditional school of thought. His original design was traditional in character, both inside and outside, so as to blend with the existing remains, but the new Bishop made clear that he would prefer a more modernistic treatment. It seemed possible to do this for the interior, as it was not seen in conjunction with the old work, but outside he (Sir Giles Scott) felt that the new buildings should blend with the old medieval remains. The design was therefore offered to meet as far as possible the Bishop's wishes, but this introduction of modernism, and the difference between the inside and the outside, was disliked by the Royal Fine Art Commission. This conflict of opinion was likely to arise with any design under the present conditions, "and it is unlikely that a modernist or transitional design will ever meet with the approval of all parties." Sir Giles Scott concludes:—"These differences of opinion, and the formation of numerous societies, committees, and commissions, &c., to give them expression, are characteristic of our time; they harass the unfortunate artist and hamper the production of good work, but they are, in this case, of importance to me, in so far as they influence my decision to act now rather than to wait, as I feel it would clear the situation for the authorities if I tendered my resignation, and thus allowed the whole project to be reconsidered. I therefore do this, with much regret, as I have greatly enjoyed working on this interesting and important project, and I should like to express my earnest hope for its successful conclusion."

★★★

In the Town and Country Planning Bill, 1947, published on January 8, LAND DEVELOPMENT RIGHTS ARE TO BE CONTROLLED and wide powers given to New County Authorities.

The main objects of the Bill are to set up a new planning system to meet present-day requirements; to solve the problem of development values in land; and to provide Exchequer grants to assist local authorities in the purchase and clearing of land for the execution of plans. The recommendations of the Uthwatt Committee are substantially implemented in the Bill. Landowners are deprived of the right to build on their land except in accordance with planning requirements. Owners who lose development value under the measure will not be entitled to compensation, but £300,000,000 will be available to meet cases of hardship.



Mr. William Zeckendorf, of Manhatton, a real-estate operator, has planned a $150,000,000 *city within the city of New York. As a first step he has purchased* 650,000 *sq. ft. along the East River, where he proposes to build one office building* 57 *storeys high, four more, each* 40 *storeys high, three* 30*-storey apartment houses, a convention hall to seat* 6,000, *an opera house, a* 6,000*-roomed hotel, a yacht landing, a roof-top airport for helicopters and a subterranean park for* 5,000 *cars, the entire development ringed by acres of gardens. The artist's drawing of the scheme is reproduced from* Life.





Prelude to Building

In this New Year's issue of the Journal, we publish—in contrast to past years when only buildings erected during the previous twelve months were illustrated—a selection of projects to be built in the future. On most of these Sir Charles Reilly comments in his article on page 54. Above are views of the model of one large job of the future—the extension to Nuneaton, covering the Caldwell and Marston areas, by Frederick Gibberd and R. C. Moon, the Borough Engineer of Nuneaton. It provides an object lesson in co-ordinated planning. The usual method adopted by Local Authorities is thoughtlessly to dump new housing estates, having few social amenities, on to any land conveniently available. But here, not only is the new housing integrated with the old, but the whole area is redesigned as a unit, complete with a small industrial estate, a school system, new shopping sub-centres, and other community buildings. Top, a view of the model looking west towards the new housing, the central open space and green wedge. Below, looking southwards, with the factory estate in the foreground and the green wedge with the schools down the centre; on the right are allotments. A lay-out of the whole scheme is shown on page 76.

MESSAGE TO THE ARCHITECTS' JOURNAL FROM THE MINISTER, THE RIGHT HONOURABLE GEORGE TOMLINSON, M.P.

I gladly take this opportunity of sending once more my New Year greetings to all readers of the Architects' Journal. The old year was a very difficult one for all of us, but it was a period of recovery during which our building labour force rose by over 200,000 men and there was a great increase in the production of building materials, in some cases multiplied several times over. In spite of the inevitable shortages and set-backs we can all congratulate ourselves on the start that has been made upon the vast programme that lies before us. I am particularly glad that we have broken the back of the Temporary House scheme and that before this month is over 100,000 of these dwellings will be in occupation by families that so badly need them. The programme before us is vast, a programme not only of house building but of various schemes of re-equipment on which our national progress depends. Leaving luxuries altogether aside, there is so much work to be done that we must continue every effort to ensure that the most important comes first. We must have planning both nationally and regionally, but at the same time we must take every opportunity of reducing the complications and burdensomeness of the controls. A great deal depends upon a close co-operation between the Government and Local Authorities and industrial and professional interests. I am glad to think that the machinery for consultation has been strengthened in 1946. However quickly we make our internal recovery we have to remember how dependent we are for certain necessities on the outside world. For that reason alone we cannot expect that all our difficulties will vanish in 1947. We must still anticipate some shortages and we must still be prepared to exercise our well-practised ingenuity in the use of substitutes. Nevertheless we have now the means, and we must make the resolution, to see a really substantial part of our immediate programme completed this year.

Geo. Tomlinson



ASTRAGAL'S REVIEW of 1946

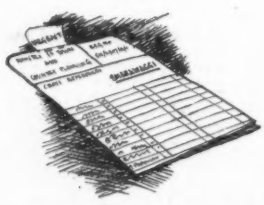
JANUARY



At Bristol the first banana to arrive in this country since 1940 was given a civic welcome attended by news-reel men and recording-cars. At Long Island, USA, a glider cast off its air-tug, landed, and disgorged its load of—what do you guess? lobsters. These two events set the keynote for 1946. In them we see embodied all the bewilderment, nostalgia and sheer hunger of the post-war period, in which the obsession for food is only matched in intensity by the longing for the good old days.

Certainly these were a long time in returning. Peace, it seemed, had its drawbacks. "Do you remember the war, folks," cracked the comics, "wasn't it *awful*?" Those of us who had been lucky enough to escape personal tragedies could afford to laugh, though the laugh [as Earl Wilson says] tapped its foot at times. Houses and clothes, shoes and cigarettes, coal and food seemed as short as ever, but in the opinion of a very cross section of the population indeed, housing was the main headache. Temporary houses, it is true, were coming off the assembly lines at the rate of 500 a week. Progress with permanent houses, however, was still lamentably slow and spasmodic, but Mr. Bevan promised "a full flood" by June. Other official promises given this month were a staff college for civil servants, a *Britain Can Make It* Exhibition in the autumn, a brick famine and a start on the rebuilding of the House of Commons. Abroad de Gaulle had resigned, and in London crowds flocked to the National Gallery to see the feats of Klee.

FEBRUARY



This was a quiet month at home. M. le Corbusier, cornered by ASTRAGAL in a London flat, talked as magically as ever. Sir Patrick Abercrombie, having finished England, was off to Ceylon, Haifa and Addis Ababa. [J. D. M. Harvey had better start to practise drawing camels.] For a moment the town-plans had ceased to tumble out like red glossy apples from a barrel. MOH published an excellently direct and informative report on House Conversion prepared by a committee chaired by Mr. Silkin. Mr. Silkin himself announced that the problem of compensation and betterment was now accepted as a state responsibility, and promised legislation shortly to deal with it.

Abroad things were less cosy. In America Truman was losing ground. To err, they said, is Truman . . . I'm just mild about Harry, they cried, or Trumany cooks spoil the broth. In India, Indonesia, Greece, Egypt, Palestine and Persia there were riots, mutinies and demonstrations—most of them directed against Great Britain. To make a plum into a prune, they said, just read the morning paper to it. To sensitive ears it seemed that the shrill foreign clamour of many tongues was uniting in one tremendous cry of "get out of it."

MARCH



Mr. Bevan's first Housing Report was issued this month as a White Paper. The figures were moderately encouraging. Although a high proportion of building labour was still busy on bomb repairs, 2,362 houses had been completed in six months, the total number of temporary houses now occupied was 21,182, and the labour force had been increased by about 8,000 men. Having fired his first round, the Minister of Health discharged the second—a White Paper on the Government's Health Service plans. "All this," cried the medicos crossly, "and Bevan, too."

From all over the country came the faint echoes of the last planning campaign. From city to city the planners hurried like witch-doctors, rattling their ju-jus, creeping the flesh with the strange chants and incantations of their secret craft. One by one each city, hypnotized, exposed its sores and ailments to the Planner's Touch. The treatment was rapid, ruthless, often necessary. Organs were removed. [. . . . "the bombing of the city centre has provided great opportunities for drastic re-shaping"], limbs were twisted straight ["circulation has been improved"], hair parted in the middle, complexion uniformly tanned.

Abroad disquiet and misery abounded. In France the trial of Dr. Petiot kept the minds of Frenchmen off their difficulties, but the Greek elections increased the tension in that unfortunate country, and in New York the Iranian dispute was getting well into its stride. Somebody's mother, it had obviously been decided, isn't using Persia yet.

APRIL

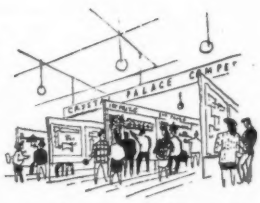


Spring brought its usual crop of exhibitions—this time a fine gay bunch of fantastic blossoms which did the heart good. At Dorland Hall was the *Daily Herald Modern Homes* Exhibition; at Knutsford, *Adventure in Planning*, sponsored by the *News Chronicle* and designed by an excellent team of contemporary architects; and at the RIBA a small, unambitious but well presented show called *Building Now*. The last was first-class of its kind and scale. It did not attempt too much, nor obscure its message with over-tricky presentation, while the Knutsford exhibition was a model example of the way the planning of a town should be introduced to its inhabitants [an example regrettably neglected by MOTCP].

Stimulated by these, perhaps, the Government announced plans for a great exhibition of 1951, and a committee was set up to go into the whole question and to choose a site. Was it, we wondered, to be Hyde Park or the South Bank, Cricklewood or Osterley? But the iron curtain was down, and we were not to know for many months. Admirers of the Nash terraces in Regents Park welcomed the news that, without prejudice to the future decision of the Gorell Committee, demolition was to be at any rate postponed, and 212 houses were to be converted into offices for Government departments.

A new island appeared this month in the Pacific, and in London an almost equally volcanic disturbance preceded the birth of *Contact*—a new, luscious, international survey of current affairs, planned, as its title indicates, to bridge with interchanged knowledge the gaps between nations. The need for some such publication—however humble and small in scale—was underlined by the news that, one grey afternoon in Geneva, the League of Nations had held its very last meeting—at a time when the only unity visible among nations was perhaps that shabby little Panda in the London Zoo.

MAY



The month of exhibitions yielded to the month of competitions—for horse troughs and palaces, for flats and housing estates, for bus shelters and cathedrals. By winning the Crystal Palace competition, Messrs. Jackson and Edmunds set light to a barrow-load of fireworks which rivalled Brock's displays outside the old palace. This was perhaps to be expected. Ever since Barry won the Houses of Parliament, competitions have always had their accompaniment of rancour and agitation, and always it has eventually sputtered into silence, and the building is usually built and quickly forgotten. In this case, however, even the judges were guarded in their praise, and the low moan which greeted the publication of the winning designs—perhaps from Paxton spinning like a turbine in his grave, or perhaps from the agonised throats of the younger architects—must have been audible among the concrete mastodons of Sydenham. [I refer to the garden ornaments of the old palace, not to Mr. Gibberd's flats.]

Faith in the competition system—periodically shaken to its roots—was restored by Messrs. Powell and Moya's excellent winning schemes for the Westminster Flats—a remarkably imaginative, mature and able design. But more exciting than this, more awe-inspiring even than the new Crystal Palace, was Mr. Silkin's New Towns Programme, launched this month.

This month's score of Bevanly Mansions—11,381 permanent and 30,637 temporary—showed a slight setback on the anticipated figures.

JUNE

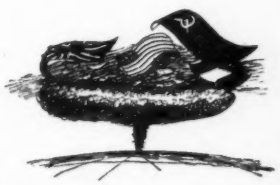


The decision to hold a Victory Parade on June 6 had been widely criticised during the preceding weeks. The refusal of our Russian allies to attend, the disturbing news from all quarters of the globe, the meagre fruits of victory available at home, the dusty deserts of Hiroshima and Nagasaki, and the mined Ruhr all seemed to discourage celebration. Perhaps it was a little artificial compared with 1918-19. Peace came then, as it does in the story books, suddenly and close upon the heels of near defeat. This time we could see victory on the horizon and, though God knows it was welcome, it was expected, and tantalisingly tardy in arriving. But when the day came, it was rightly marked throughout the land as a day of rejoicing, and in London thousands lined the streets to see the long procession pass and to peer into the rain-darkened skies at the fleets of roaring aircraft.

The month which began thus with circuses ended without bread. Sir Ben Smith had resigned—"sunk," said Mr. Churchill, "apparently without trace"—and one of the first tasks of his successor, John Strachey, was to announce that, in view of world shortages and general post-war difficulties, bread was to be rationed. The news was not accepted cheerfully. The bakers got as hot and cross as buns, the Tory Press barked, the Government cajoled and threatened alternately. Meanwhile the housewife resigned herself to mastering yet another complex system of coupons and points, in the art of which she had grown so wearisomely experienced.

"The flood" of houses predicted by Mr. Bevan in January was still blocked somewhere by shortages of material.

JULY



A tremendous personal success was scored this month by Mr. Lewis Mumford, who was visiting this country under the auspices of the Institute of Sociology. "Mumford's the word," we cried, as we crowded to hear him in the lecture halls of Sudbury, of Edinburgh, of London, and Portland Place echoed to the soft pad of pilgrim feet *en route* to the RIBA, where in a memorable atmosphere of tension a packed audience—never so packed, perhaps, since the visit of that other prophet, Frank Lloyd Wright—heard this modest, humane and brilliant speaker outline his ideas for a world centre for the United Nations.

Temporary centre for these unhappy folk was Paris, where the Peace Conference of 1946 opened in an atmosphere of cautious cordiality. Weekly over the air the bland and faintly bronchial voice of Harold Nicholson described the scenes, the delegates, the furnishings, the speeches. Weekly he grew more puzzled and disturbed; manfully he tried to cheer us up, but the atmosphere of the conference—artificial, acrimonious, soupy—muffled his benignity. No wonder, we thought, the fashionably literary faith of Existentialism has given way to the even more pessimistic cult of Dolorism. No wonder the papers are filled with stories of Branksome Chine and blood-stained whips. Here at least we could see evil brought to light and safely punished. And over all hung, menacing and mushroom-shaped, the shadow of Bikini, where in Operation Crossroads, Atom Bomb Gilda was dropped upon the sailor-suited pigs.

At home, events were more cosy and domestic. The MOW Standard Committee announced the winding-up of its long and useful work; RIBA election results were announced; and the Interim Report on the City by planners Holford and Holden was published. To those who regarded Stevenage and Crawley [the first officially named new towns] as victims

threatened with a Silkin noose, the Minister was comforting. "Realisation of beauty," he said firmly, "is a vital corollary in the New Towns."

AUGUST



New Towns dominated the architectural news for this month. The new Towns Bill passed smoothly through the House. The New Towns Committee, under the energetic leadership of Lord Reith, published its excellently objective report, the membership of the Stevenage Development Committee [under Clough Williams-Ellis] was announced and the compulsory acquisition of the site heralded, and two more future towns were named—Harlow and Hemel Hempstead.

Despite a singularly inept handling of public relations the Ministry of Town and Country Planning was clearly pressing forward with commendable energy and despatch. It is no exaggeration to say that its programme will be watched with interest and anxiety by technicians all over the world. A new town can be financed without difficulty and built with comparative ease. But will it be a living thing—or just a collection of streets and houses? Only the results of this great social experiment can reveal the answer.

Abroad, the first Government of Indians to take over power in India was welcomed with fearful riots and disorder. In Palestine the outrages and murder increased daily. There were rockets, it was said, over Sweden. Steady rain in England, a tremendous slump in Wall Street, and ceaseless ill-tempered backchat from Paris.

SEPTEMBER



Despite considerable achievement, the housing position in the first month of autumn was disquieting. The official programme for 1946 was only one-third complete—with the best of the weather gone—and the temporary house programme was nearing its end just as its organisation was reaching its maximum efficiency. Production per man-hour in the industry was low, building prices were rising, and yet the £1,200 ceiling remained unchanged. Almost meaningless in 1945, when it had been imposed, it was now a farce in which nobody could see the joke. Official returns seemed to indicate that private enterprise houses were put up at twice the rate of local authority houses—an ironical comment upon the arbitrary 4-to-1 ratio imposed by MOH, and proof that, however desirable an instrument the local authority may be, it is still far from efficient. No wonder Mr. Bevan went off to Switzerland and that in, London, bands of squatters, weary of waiting-lists, started moving into luxury blocks of flats in Westminster, Kensington and Marylebone. The demonstrations were carried out with extreme orderliness and good temper on all sides, and they had a limited success in that they injected some of the more dilatory authorities with a little more energy.

Membership of the Harlow and Hemel Hempstead Committees was announced, the witch doctors gathered for their annual rites—this time at Durham—and Scotland announced plans for a new town in central Fife. The IRA held a conference against the elegant background of the Swiss Exhibition at the RIBA to discuss its future policy and structure and the King and Queen travelled down from Scotland to open the first post-war Pandora's Box, the *Britain Can Make It* Exhibition, at the Victoria and Albert Museum. This crowded, glittering, dramatically presented display was certainly an indication that Britons were still reasonably good shopkeepers, just as the Gloster Meteor proved this month that a Briton could move faster than anyone else in the world. But we still weren't able to do anything about the weather, which remained, week after week, wet, windy and intolerable.

OCTOBER



Housing, pushed rather into the background this month by the Heath trial, the Nuremberg hangings, and the dramatic suicide of Goering, looked a little better. The squatters had disappeared, Mr. Bevan was back from Switzerland looking [as they used to say of the Prince of Wales] bronzed and well, there was a considerable increase of building labour to report, and houses in Eaton Square were being converted into flats.

The plans of Chester, Hastings and Hull were published—the last windfalls, perhaps, from that once brimming barrel?—and in London there was a designer's conference, and a strike of workers in luxury hotels. The *Queen Elizabeth*, re-groomed by Mr. Wornum, fresh from his triumphs with the De la Rue Geyser, left on her post-war maiden voyage with a cargo of public faces, and the BBC launched another maiden venture—the Third Programme. London Transport announced that in future all its buses—you know, those red things which sit motionless for hours in traffic jams—will be streamlined, and the correspondence in *The Times* over the Browning Chapel and Fountains Abbey rumbled to its conclusion. With any luck both these unfortunate projects have been scotched. To round the month off . . . "the nostrils prick" . . . Franco was awarded the freedom of Guernica.

NOVEMBER



The final report of the Bishop of London's Commission on the City Churches was to lovers of the City a rather disappointing document. True, some of the best and most reparable churches are to be rebuilt—among them St. Brides, St. Marylebone, St. Vedast's, and that masterpiece, St. Stephen's, Walbrook, but five church sites are to be sold, presumably to the highest bidder, for development. This is surely a short-sighted policy. These sites are amenities which belong to the City as well as to the Church, and if they are not to be re-designed as garden-ruins, at least they should be left as open spaces.

Housing figures continued to creep up. Mr. Bevan went so far as to say he was "frightened" by the slowness of it all, while Mr. Wilmot boasted that the temporary aluminium houses would "last a hundred years." That's just what we *don't* want them to do, Mr. Wilmot. The private builder

was not getting even one house in four to build, as the proportion from official figures had now risen to 5½—1 in favour of the local authorities.

Troubles persisted abroad. There was the usual quota of riots and murders from India, Palestine and Egypt, and America, after a Republican election victory, was labouring under another coal strike. At home there was excitement over the Alpine Dakota rescue, and argument over the Roosevelt statue and the Waterloo Bridge sculptures. Fly-posting had so increased in London—particularly on behalf of the less reputable films—that to many of us it seemed at times as if we were hemmed in on all sides by half-naked women carrying whips.

DECEMBER

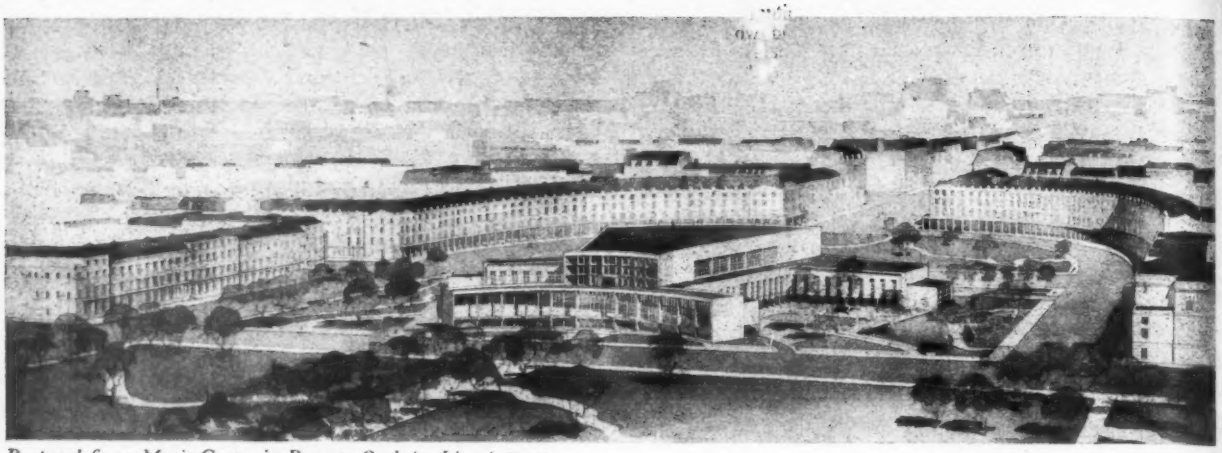


This month was as discouraging for the Ministry of Health as it was for cricket fans. From Australia came the continual rattle of falling English wickets, while at home there were plenty of noises to annoy Aneurin—from the angry whirr of recalcitrant dentists' drills to the colonic grumbling of an intransigeant BMA. Housing figures showed that although plenty of houses were being started, not nearly enough were being finished. It was customary to blame poor PMH on the part of the builder for this, but the real reason is more likely to be that the building material industries were not expanding fast enough to cope with rising demands. Shortages were aggravated by the desperate coal famine, which was closing factories and delaying deliveries. The timber allowance was cut to 1.6 standard per house, and statistics showed that the prices of building materials had risen relatively more during the last 8 months than over any other quarter since 1944. It was perhaps this information that prompted the House Building Industries Standing Committee to produce a scheme for building 10,000 houses at £1,400 each. This shows what hope you've got of building a £1,200 home for your uncle.

Britain Can Make It closed its doors after a deservedly successful run of three months, and Drury Lane reopened with a Noel Coward operetta. Bevin arrived home from New York, Stalin was 67, Laski lost his libel case, Mr. Dalton left for Nice. The weather continued to be foggy, icy and wet, but as we sweated through the relentless caper of Christmas shopping and remembered the past year, we could only be thankful that it was over and that every cloud in 1947 will, we are promised, have a cupro-nickel lining.

PERSONALITIES

ASTRAGAL'S vote for Personality of the year 1946 goes to Lewis Mumford—prophet, critic and humanist, the second American within a decade to be the centre of what can only be called a revivalist meeting at the RIBA. Runners-up are the organisers and designers of the phenomenally successful *Britain Can Make It* Exhibition. ASTRAGAL also lifts his hat to Knights T. P. Bennett and Percy Thomas, to Gold Medallists Patrick Abercrombie and A. E. Richardson, to PRIBA L. H. Keay and LCC chief architect R. H. Matthew, to Honorary Fellow Peter Fraser and Honorary Associate Sir Stephen Tallents, to Royal Academician C. H. James and to Director of Works C. J. Mole; in farewell to Bobby Carter and in welcome to R. E. Enthoven; to Lord Reith for the reports of his New Towns' Committee, to Mr. Silkin for his perseverance, and to Messrs. Gibberd, Jellicoe and Sharp with best wishes; in farewell to photographer Mr. Dell, and in welcome back after illness to Phyllis Dixey, "longing," in the words of her manager, "to be back in harness again"; to the County of Hertford on acquiring a promising team of architects, and to the town of Sudbury for its enterprise in planning; in congratulation to the centenarian *News Chronicle* for its Knutsford project, and to G. B. Shaw on reaching the age of 90, and in sympathy to Dr. Bogomolets, the inventor of the serum for prolonging human life to the span of 150 years, who died this year aged 64; to Milner Gray, surely the first English designer ever appointed by a Swiss firm, and to Nordiska Kompaniet, of Sweden, for their package furniture; to Burmese planners P. J. Marshall and W. Tatton-Brown, and to the Polish architectural students of Liverpool for their high standard of work; to the Prudential Assurance Co. on acquiring Cockington ["our directors are very interested in old villages"], and to the *New Yorker* for covering Hiroshima; to authors J. M. Richards [*The Castles on the Ground*], Ralph Tubbs [*The Englishman Builds*], and to the editors and publishers of *Contact*; to Frank Lloyd Wright for persuading a client to build a country house without any bedroom windows, and to Dr. Thomas Bodkin, the potential holder of the free-wheeling record down the ramps of the Guggenheim Gallery; to photographer Kidder Smith and painter Kenneth Rowntree; to City planners Holford and Holden, and Hugh Gordon-Peter; to European Professor Fanian, who promises us that in future all wars will be soundless, and to the members of the Inter-Planetary Society who, if all goes well, may not be here with us to find out; to Dorothy Stroud, new Inspectress at the Soane Museum, and to Rebecca West for her reporting of the traitor and Nuremberg trials; to steeplejack Larkin, and to the anonymous drunk who climbed to the top of the Nelson column scaffolding; to Gordon Stephenson of MOTCP, the first fully confessed civil servant Sharawag, and to Johns Piper and Betjeman for continued and devoted service to Sharawaggi; to the Information Centre for another year of indefatigable answering of questions on subjects varying from the use of disused burial grounds to the name of a good water-repellent, and to the equally indefatigable Brains Trust; to the BBC for its Third Programme—however many silk stockings it cost, and to the editor of *Alphabet and Image* on its first appearance; to Eric Bird for re-grooming the RIBA Journal, and to Jane Russell for displaying her good intentions in *The Outlaw;* to Misha Black for his egg-cups, and to Jim Moran, the Hollywood eccentric, who after 21 days of sitting, hatched out an ostrich egg; to William Morris, fifty years dead, but still the most quoted authority in design, and to the CID who, wisely enough, do a good deal of the quoting; in sympathy to the St. Bernard dogs who have at last got fed up with rescuing, and in admiration to the Swiss pilots who carried out the rescues from the wrecked Alpine Dakota; to Mr. and Mrs. John Summerson for providing three little inmates for three little aedicules, and to Edward Ward, BBC correspondent, captive in a lighthouse; to the Board of Trade for appointing design committees for the BIF, and in good wishes to the National Coal Board; and in final salute to the little girl in Wisconsin who last March caught a bird by putting salt on its tail.



Proposal for a Music Centre in Regents Park by Lionel Brett.

Although we are not yet able to ask Sir Charles Reilly to contribute his review of the year's buildings as in pre-war days, architects are back at work once more and we here present a number of projects with some characteristic comments from the pen of Sir Charles in the hope that it will not be long before projects can be translated into buildings. It has only been possible to deal summarily with the projects and there are many others it has proved impossible to illustrate at all. The numbers in the article correspond to those against the illustrations on pages 57 to 76.

THE NEXT 5 OR 50 YEARS' WORK

[*by Professor Sir Charles Reilly*]

To attempt in the few days at my disposal to sum up, let alone criticize, the many hundreds of drawings scattered over my dining room floor when one is well over seventy and spends as much of one's time as possible with one's legs up, is, of course, an impossible task. These more or less chatty notes must not therefore be taken too seriously by anyone.

First the drawings illustrated do not represent the mass of the great work ahead of architects in the near future. That will come about only when the great town planning schemes, which every town of any importance has had made during the last five or more years, are carried out. Some of these are not even ready yet, like that for the City of London, which contains many acres of cleared space to be filled not only with new buildings but new streets. Then there are the Twenty New Towns, new conceptions of a new civilisation. There are the thousands of new schools which the raising of the school age will call for, the hundreds of new hospitals and the new clinics up and down the land which the medical profession will require when the actual form and details of the conception of the new service are finally settled. These are some of the really big things ahead of architects, enough to make almost a new England, yet one which, one believes, will not only preserve the best of the old but make the whole far more efficient to meet the new demands the war has made upon us.

The drawings here illustrated and lightly commented on, are, therefore, but sporadic examples of various types of work for the comparatively few sites unaffected by these larger schemes yet to be consummated. It seems to me therefore best to divide them up into types and deal with each type separately as follows: (i) industrial, (ii) churches, (iii) hospitals, (iv) commercial, (v) houses (individual), (vi) schools, (vii) communal, (viii) housing. The strange thing is that with an architecture in the making in this exciting age, it is really difficult at first glance to say with certainty to which of the groups any particular building belongs. Most of them are arrangements of cubes, largely of glass, with the cubes placed sometimes in piles one on top of another for, say, a tall office building, sometimes on their sides for a school, a hospital or a housing scheme, but all such as nice children would build with a nice clean box of bricks on a nice clean floor. A later age will look back, I hope, on these primitives of the mid-twentieth century with the same sort of interest as we to-day look on some simple white-washed crofter's cottage or group of such cottages in the North of Scotland or the West of Ireland. May they develop the same affection for them.

I. INDUSTRIAL

The most interesting scheme constructionally among the factories (1) is a large one in South Wales on a very exposed site, 1,200 feet above sea level, designed by the Co-operative Partnership, whatever that may be (a good sounding name).

It is anyhow part of the general scheme for bringing new industries into the development areas and the fact that it brings also new and interesting forms of construction by Ove Arup, the consulting engineer, whose name is always to the fore with such things, is all to the good. Here the main production area of the factory, where the greatest possible flexibility of floor space is required, is being roofed with nine reinforced shell concrete domes each spanning 90 ft. 0 in. × 70 ft. 0 in., and covering a total floor area of 82,000 square feet with only sixteen small supports.

The next most interesting piece of construction, which I confess I do not quite understand, is shown in a photograph of the model of a hangar for the BEA (4) by their architect, Christopher Nicholson, working with F. J. Samuely as consulting engineer. To judge from the aeroplane models the span of the roof and entrance lintel must be some 500-600 feet. After this two sliding curtain walls of some 300 feet each are child's play. I shall be very interested to see this roof when constructed and covered with deep snow. I shall then make a deep obeisance to the above two gentlemen if, after walking under it, I am still alive.

F. R. S. Yorke has a photograph of a model of a factory for the Gateshead Trading Estate called the Sigmund Factory (7). In the model it is a nice clean-looking thing. The flat unlit intervals between the lights of the dog tooth roof must make pleasant rests to the eye, but how the lower of the two storeys, if there are two, remains lit is a mystery which the model does not resolve. I am sure there is some very clever and interesting construction hidden away here if one could only see a section.

We now come (8), not exactly to a Cathedral, but to another and, if I may say so, a better Battersea Power Station on the Thames by Sir Giles Scott, O.M., R.A. Here, in a fine perspective by A. C. Webb, we see the solid, plain masses with just a little frill to define them—one must allow a little playfulness somewhere to an R.A.—set one another off with a certain grandeur which even the tapering tower-like chimneys at the East and West Ends do not destroy. The sloping lines in the sky are perhaps only a hopeful indication that some sort of radio active power is on the way which will in time forestall the waste of a thousand tons of coal a day which these stations cause with their 28 per cent. efficiency in electricity instead of 80 per cent. if they would only condescend to heat the town as well as light it.

T. S. Tait's factory at Plymouth (6) looks straightforward and efficient with the central glass section well stopped off at either end and with a solid area wall separating it from the field in front where hay-making operations appear to be in progress. No doubt it is to be a solid proof that with proper smoke consumption and a general tidiness of stores and products, not in my

experience often to be found here, in the surroundings of a factory, industry and agriculture can exist and be happy side by side. Indeed, I do not see why a nice clean factory such as this of Tait's should not be a pleasant thing to live near.

The Grenfell Baines Group are the architects for the Turner Brothers' Asbestos Company's new factory (2), at Hindley. As far as one can judge from the perspective it seems a very complete scheme, with canteen and community centre, with dance and debating hall approached by a covered way from the main building and with a proper system of traffic control. That the manufacture of asbestos requires no tall chimneys, emitting clouds of smoke, must be a new sort of blessing to Lancashire, unless indeed, as I rather suspect, their omission here, as in most of these schemes, is artistic licence.

Martin Slater's factory (3) in Suffolk certainly shows none, the drawing only indicating that the factory is out in the country among fields which I hope it will not spoil. It looks a simple straight-forward little building which I hope will make no mess of smoke or otherwise. Messrs. Ellis's scheme (5), father and son both, I believe, my old students, is for Beecham's Pills. Apparently if more people saved their guineas and took Beecham's pills, St. Helen's would be a cleaner and consequently a happier place. Anyhow, more power to Messrs. Ellis and Ellis and to another old student, H. Norcliffe, who made, I see, this honest and straightforward drawing.

Lastly there is Hughes and Bicknell's sketch of an Aero Research Station at Duxford (9), showing a nice sense of human values, as witness the very pleasant balcony to the top floor for tea with the typists, architecturally valuable, too, with its striped and coloured awning against the white wall, and the swimming bath and arrangements for sun-bathing in the forecourt. This Duxford factory must be a pleasant place in which to work. More power, too, to Messrs. Hughes and Bicknell who understand that all work and no play makes dull workers, research or otherwise.

Now for two LMS stations, a new one at Barrow and a conversion scheme, somewhere unspecified, but both by William Hamlyn, the Company's architect. In the second scheme (10) a number of small rooms on a platform all on one storey are to be connected into spacious waiting and dining rooms with kitchen, management and staff rooms over, all very carefully thought out; the sort of job I imagine many architects will be living on for the next few years, though they will be cutting up houses into flats rather than increasing and perfecting feeding arrangements. This alteration is worth studying for the complicated service which one seldom considers when one rushes a meal to catch the train. The new Barrow Station (11) shows the clean lines of a well thought-out scheme for the various types of traffic and, with a big concourse hall dining room *en suite*, a thoughtfulness for passengers which I hope will be extended to Lime Street, Liverpool, Crewe, and other great but ancient centres on this line. The buildings appear well-related to the existing forecourt and approaches for the convenience of arriving passengers and there is a rigid separation of the working part of the station from the public part.

II. CHURCHES

There is only one scheme offered here—a church and hall at Darleston (12) by Lavender and Twentyman. I wonder why there are no more. We are not yet a godless nation, and in most of the new housing estates, sites are set apart for churches and in some cases drawings of these are being prepared.

The interior looks on the whole dignified, and I like the tall, thin tower-like belfry showing clearly its three bells. The roofed building connecting the church and the church hall, however, looks to me too big and a little out of scale with the church, and what one sees of the church hall (or vicarage) is, in the perspective, a little too like the bay window of an ordinary villa residence. The main building, however, if not very inspired, has a pleasing simplicity and directness both inside and out.

III. HOSPITALS

No plan is shown for the Sanatorium for the big girls' school at Cheltenham (14), but a very competent-looking isometric view to the South East from the air. Rightly, architects are more and more showing air views of their buildings instead of worms' eye ones. This lay-out like four spread-out fingers with rounded ends and continuous windows and sun balconies at their end (but Georgian ones at their sides) makes the building look like a contemporary one at first sight, and then one sees it is adapted to the taste of young ladies brought up in traditional homes. This is, of course, very nicely done. One would hardly expect anything else from the Secretary of the Royal Fine Art Commission. Anyhow, it is clear that this sanatorium gets plenty of light and air whatever the kind of window through which it comes, and these are still our chief curative elements.

The plan and isometric view of the Royal Sheffield Infirmary (13), won in a competition by Adams, Holden and Pearson in 1940, is, of course, a very different thing. Here, laid out in their proper order, on a fairly open site, are all the elements of a big general hospital. The drawing should be invaluable to the architect hoping to build some of the many hospitals now contemplated. Architecturally, the smaller blocks contrast admirably in scale with the mass of the main hospital and the wards.

W. Crabtree's Health Centre for Southampton (15) in glass and steel amusingly ends a long vista with Berry Webber's stone Civic Centre at the other end. Southampton will certainly not lack useful contrasts showing the changes in our architecture from decade to decade. This fine building for the health of the town has been carefully planned in accordance with modern ideas of Maurice Williams, the active Medical Officer of Health. The building contains maternity, child welfare, day nursery, tubercular, orthopædic, dental, and other clinics and suites of rooms in which the local doctors will practice. If I were about to raise a young family I should have difficulty in choosing between Plymouth and Southampton as places in which to live with all the advantages, old and new, which both these towns will possess in a few years' time, if they will only really trust the experts they are now employing.

IV. COMMERCIAL

Taking the Soho Square scheme (18) by Messrs. McGrath and Oxley first, we must start off by saying that in these town planning days it seems a great pity that the square (as indeed all squares, circuses and crescents) is not owned by one person or by London as a whole, and could therefore be rebuilt as a whole just as it was designed as a whole. Next to this new building one can see from the old ones on either side what the old lines were. The new building, with its alternate layers of glass and solids stretching from side to side, stands up twice the height of the old buildings like some projecting tooth. In itself it has an efficient looking, quietly composed façade making the most of such light as London gets in the mornings, both in front and from a series of small areas at the side. All one can truthfully say is that this might be a fine building as part of a new square. The continuous balconies will give pleasant shade and some expression to the tall rectangular mass, but one wishes, a little hopelessly, that the two vertical tiers of windows which, when open, as on the drawing, do so much to help the composition, will always remain so whatever the weather. It seems architecturally necessary that they should.

The Freeman, Hardy and Willis offices in Leicester (19), by Sir John Brown and Henson, are fortunate in their corner site and one is glad to see the alternate bands of window and solid are here built round a curve, but one cannot say the rectangular corner block containing the main staircase on which the curved front abuts receives it with much graciousness.

Crabtree and Johnson's schemes both for Plymouth and Southampton shopping centres (16 and 17) show very well the interest modern steel and concrete architecture can give, when used over a considerable area, by the contrasting shapes of the masses possible to such construction but not possible to simple bricks and stones piled one above another even with the help of hidden steel. One cannot go into such big schemes in detail, but the general bird's eye view of the Plymouth shopping area and that to a larger scale of the blocks of shops on Guild Hall Square, Southampton, both show the flexibility which modern steel and concrete architecture, in the hands of an artist like William Crabtree, not only in the individual buildings but in the balanced yet non-symmetrical composition of several buildings, can provide over a large area—a lively result no classical style could produce. Crabtree, too, avoids the dullness of the gridiron planning of streets which is the ruin of the great towns of the Middle West of America. The sad thing is, I hear, that at Plymouth the City Council is already in places allowing this fine modern composition to be spoilt by individual owners using different materials and shapes. That is the competitive advertising spirit of private enterprise at its worst running counter to a fine scheme for the town as a whole. If people like Sir Patrick Abercrombie, Denis Winston and William Crabtree are employed their designs should be respected, or why employ such practical artists?

V. HOUSES (Individual)

The house (21) by Yorke, Rosenberg and Mardall at Fort Corbletts, Alderney, is to be on the thick walls of an old fort with a big but simple classical entrance to the fort on one side. Yorke is the only man I know who dares to build direct modern stuff near to old stuff and pulls it off. This house is a two-storey one above apparently old and deep cellars and as far as the ground floor goes appears to use the thick old walling, at least on two sides with small narrow windows pierced in it.

VI. SCHOOLS

Let us begin with Denis Clarke Hall's primary school for Ormesby, Yorkshire (26). It is for 120 Infants and 200 Juniors, both sections self-contained but with direct access to the assembly hall, dining room, medical inspection and staff quarters and playground. Its chief characteristic, I should say, is its open character, with an open covered way connecting the blocks and running along one side of the paved playground, and with smaller open courts, behind the classrooms and at the side, as in his successful *News Chronicle* Competition. The construction everywhere, the architect says, is standardized for cheapness. I wish, however, even a primary and infants' school could have at least one thing a little less obviously functional which the children could remember with pleasure in after life.

The next on the list is Yorke, Rosenberg and Mardall's extension to Shebbear College, Devonshire (27), and once again we have the modern buildings, with which Mr. Yorke's name is connected, in close relation to old ones, yet so delicately modelled and proportioned are these new ones (notice the windows) and so sensitively felt that, without abating one jot of their functional character, they do no harm to the old.

The Middlesex County Council example (25) by C. G. Stillman is a plan for a junior boys' and girls' school, each department being for 320 children. As a complete non-expert in school planning I can only remark

on its spaciousness, especially in the number of w.c.s all placed round the sides of various big halls, the fine dining and kitchen accommodation and the good assembly halls. I notice with interest, although these two halls are of the same size, and for the same numbers, that that for the junior boys has a stage and that for the junior girls is without one. Is that because in Mr. Stillman's opinion boys are better at acting than girls, an opinion, if so, he appears to share with Shakespeare?

Mr. Benslyn sends a fine coloured perspective (24) of a more permanent looking building of brick and stone with a long range of continuous tall windows in smallish panes divided by what look like thick cast-iron bars. It is a proposed infants school in Delhurst Road for the Birmingham Education Committee, to which he is architect, to accommodate 320 infants plus a reception unit for 30 children. I hope this latter means that some children in Birmingham and their teachers visit with critical eyes and ears each other's schools.

The Hertfordshire County Council (29) who are making such an elaborate survey of the requirements of their schools, are also making such good models that one photograph I thought for some time was of an actual building. I am sure Mr. Aslin will soon appear before the curtain with some grand new ideas we shall all welcome.

Mr. Knapp-Fisher shows some additions (28) to the rather higgledy-piggledy Victorian Gothic buildings of Framlingham College. That on the left of the perspective is for a new junior school, that in the centre facing the main building is to house the Speech Room. The two together form a sort of large open forecourt to the school and especially the latter provides some strength and graciousness which the school does not now possess. No doubt purely contemporary buildings like Mr. Yorke's would be more than the governors of 1860 ones could stomach.

VII. COMMUNAL BUILDING

Let us begin with the Red Ensign Club (30) by Brian O'Rorke and Colin Murray for Dock Street, London Docks, because I have, like others, found in O'Rorke's work, not only an absence of old-classical trappings most of us used thirty years ago, but also in his interiors a gaiety of spirit, and especially in those of his Orient Liners, not often to be found among the new architectural protestants. There are to be about 40 bedrooms to a floor, which accounts for the number of small windows which nevertheless somehow do not seem to overcrowd the building and leave plenty of wall surface. I confess I find the relations and sizes of the blocks of building very pleasant, though whether they will look so well when the garden court is hidden, and the blank wall, largely shut out by the vicarage that is mentioned as facing the same way, I am not so sure. This, though, is one of the inevitable risks architects run till, as in Russia to-day or in our own 18th century, they are commissioned once more to build whole streets or sections of streets and not only single buildings.

Sir Percy Thomas supplies two schemes, one of a small restaurant at St. Fagan's Castle, Cardiff (33), and the other of a Community Centre at Ebbw Vale (34). St. Fagan's Castle has been taken over by the Welsh National Museum as a Folk Museum for the Welsh Nation, and Sir Percy Thomas has very wisely designed his little restaurant for it as a contrast to the Castle both in scale and style instead of perpetrating a fake as our fathers would no doubt have done. The late President of the RIBA, who proved himself there the most tactful of men, could hardly make a mistake of that sort. He has provided a pleasant room for the restaurant facing south-west, with large sliding windows and a big semi-circular projecting section with some of the same great windows facing due south: for those happy days when the sun really comes back with some heat in it.

The chief interest of any new conception of the Community Centres or Clubs which I hope we shall all soon be building everywhere, is in finding out what they should contain. My view is that they should be a cross between a country club, with opportunities for eating, games and occupations for both sexes and most ages, and a sort of Athenæum with good reading rooms and library. It is therefore very interesting to see what Sir Percy Thomas is planning in his. First he provides as his chief item, which is no doubt right in Wales, a large hall with stage for an orchestra with 800 seats for listeners; this area may also be used as a dancing space for 240 couples. Then on the same level are a comparatively small kitchen, bar, smoke room, and a billiards room, but no restaurant or general reading room. On the first floor, however, is a large café and foyer with lecture room and library beyond. Perhaps there is a canteen in the great steel plate works of Richard Thomas, Ltd., for whom this Community Centre is to be erected, which makes a restaurant unnecessary. The women, one imagines, mostly go up to the café, while the men remain below round the bar and billiards room. Not my idea of a community. There is no general reading room easily accessible to all where the reader, say, of the *Daily Telegraph* can learn the truth from the reader of the *News-Chronicle* and *vice versa*, or rooms for the hobbies of boys and girls. The elevation in a simple way seems to express the main divisions of the plan, though the long range of continuous windows on the front floor gives only on to a corridor. I should like to see added in any Community Centre for general use a debating hall on the plan of the Houses of Commons, reduced if necessary, in size.

Geoffrey Jellicoe's foreshore Pavilion at Mablethorpe and Sutton (32), though it contains, I am told, a theatre, dance hall, restaurant, and two cafés, is only shown by a photograph of a small model, and leaves the reader the game of guessing what the parts are. I am intrigued at what happens in the big cage on stilts and in the little rather squeezed black house, like the fishermen's black wooden structures on the shore at Hastings, and most of all what is in the big columbarium with, strange to say, a sky light.

VIII. HOUSING

This is, of course, the biggest division, and in some ways, largely, I think, because of the wholesale way in which we have to look at housing to-day, the dullest. Fortunately, the idea of more and better communal arrangements not only in restaurants, but in public rooms is growing here as it is abroad. When the Polish School of Architecture was housed in the Liverpool School during the war, I happened to be there one day when the Poles were at work on a block of ordinary flats, when I noticed that all the designs contained a large common room not in the programme. I asked about it and the Poles all said they never built a block of flats at home for any class without such a room, where newspapers could be read, letters written and dances given. I am afraid we have not everywhere quite got to that yet. If anyone reads what follows and if, too, they know a little book called *The Reilly Plan: A New Way of Life*, by Lawrence Wolfe (which was written without my seeing it till the galley proofs arrived, and then the author would not let me reduce his superlatives and other marks of enthusiasm), they will realize that I want to break down Suburbia and its silly selfish ideas of keeping oneself to oneself. I am not in favour, therefore, of the isolationist house or flat anywhere where one can live a dozen years and not know half a dozen of one's neighbours. They must make allowances for my prejudice.

Let us begin, then, with the 13 big blocks of flats (37) Tecton are putting up in Finsbury and called the Busaco Street Scheme. The architects say: "The schemes are considered not as providing so many isolated dwellings, but as social units. The relationship of the different blocks has been carefully studied so that in each scheme a homogeneous ensemble results with the character of a 'colony' or social unit." I am very glad to hear this, but I cannot see it on the model. In each of the eight little communities at Bilston and the two so far at Dudley, where I have some influence, I have secured this variety by getting the Corporations to appoint for each a separate architect of my own choice. "Properly planned gardens and playgrounds link the different blocks together." Good, but there is little sign of it on the block plan beyond a paddling pool for children. I can see no proper Community Centre with feeding, reading, dancing and debating rooms for the adults among the 1,200 odd people who will live in this Busaco Street scheme. I suggest further there should be a nursery school and a 24-hour nursery, and that these and the Community Centre should be approached, if possible, by open covered ways from the blocks. I suggest these smaller and lower buildings, if grouped together, would give scale to the larger ones and interest and humanity to the whole. I am glad to see the French Garchey system of the mechanical collection of rubbish is being used. Tecton may be glad to know, however, there is now a much cheaper one, called the Hamilton, we are using at Bilston and Dudley which brings the cost down for 500 residences or more to that of the dustman, his smelly cart, the dustbin and pail under the sink, breeding flies and disease, all of which are abolished.

Messrs. Culpin offer a perspective layout of eight-storey blocks of flats (39) at Wandsworth. The blocks look good, clean blocks with tall vertical lines obtained by short equal lengths of balconies one above the other and short projections. In the description, however, the architects say there is a day nursery, a nursery school and a children's fitted playground, a covered playground and a public house, by which I hope they mean a licensed Community Centre, for all such centres should, in my opinion, have a club licence limited to the residents.

Hening and Chitty send two photographs of the front and back of a model of one block of flats (41) out of twelve, to be erected on a bombed site at St. Pancras, comprising 274 flats of various sizes from one to five living rooms. Adjoining flats are isolated by a party wall built in two independent thick masses, and floating floors in living rooms and bedrooms insulate the corresponding rooms below against undue sound transmission. The layout (instead of a licensed Community Centre with club rooms) will contain two rebuilt public houses, a nursery school and gardens to all blocks with two childrens' playgrounds.

F. R. S. Yorke, Rosenberg and Mardall's small three-storey blocks of flats and cottages (35) at Brynmawr, South Wales, are apparently on the steep side of a valley running east and west. The little box-like houses, very sensible in such a district, seem to be in terraces facing north and south, and the three-storey block of flats east and west, and it is interesting to see the different fenestration of each. A good feature in the small blocks of flats are the entertainment and committee rooms on the ground floor and the communal workshop and repair room in the basement under, getting near the Polish feature already mentioned.

Edward D. Mills sends an attractive perspective of the road front of a block of 8 maisonettes (36) on the site of some 12,000 feet square of air raid shelters in Kenmure Road, Hackney. Each maisonette has a fair-sized living room on the lower floor and one supposes three bedrooms above. The long balcony to the sitting room of each maisonette is converted by the bedroom above into a pleasant looking veranda; it should be a pleasant place to sit facing west if there were anything to look at in Hackney. There are no projecting

beams or columns, thanks to Mr. Arup and the box panel system.

The little pairs of semi-detached houses (42) designed by Messrs. Mauger and May, placed in the usual way along half a dozen suburban roads, are rather ordinary except for their wide grass verges in place of front gardens, an idea I am glad to see growing here as in America. The houses have copper low-pitched roofs and widely spaced narrow columns to their porches which give them also a little character.

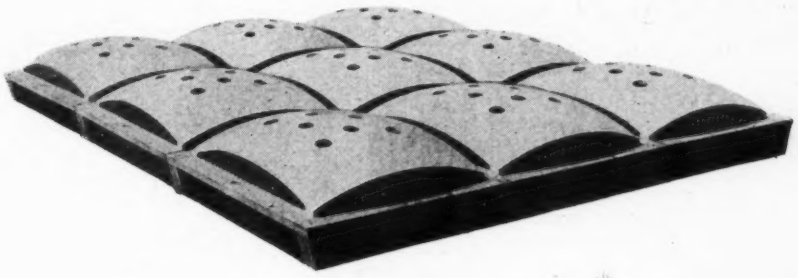
W. and T. R. Milburn's big lay-out scheme (38) for Billingham, shown in bird's eye view, amounts to a dignified Victorian suburb centred round a big horseshoe-shaped playing field and cut off from Billingham proper (or rather improper with its hundreds of tall chimneys) by a long shopping street and a series of public buildings. The houses face the road round the playing fields, which they are not allowed to see, except from the upper windows, because of the tall hedges and trees. I am glad to say they have no separate front gardens, but instead a wide verge of grass and then a wide foot pavement, then what appears to be a road wide enough for four tracks and obviously very tempting to motorists. At one end of the main axis it will be seen is a church and at the other end two balancing buildings with balancing towers, one for municipal buildings and the other for a community centre. While I am all for community centres being big enough, I hardly feel this echo of the town hall gives a sufficiently inviting character. Ending the two arms of the horseshoe are a public library and a health centre, and looking across the gardens at one another, but somehow exactly echoing one another's exteriors, are a cinema and a big hotel.

One of Bridgwater's London sets of flats (40) is a five acre scheme for 215 flats at Deptford, though the one with its own full community centre is of course at Bilston. The scheme is designed with one high block and nine lower ones to give views of and to open up a piece of land as a small park. It will be seen from the detail perspective that the architect has made the most of his stretches of plain brickwork, yet given large windows not only to his rooms but to the staircase. He has big covered balconies to each flat and in the case of the top one brings out the flat roof to turn it, too, into an outdoor room into which a bed can be pushed as in America. The layout includes shops, a public laundry and drying room, but unfortunately two public houses instead of proper clubs or community centres. For so go-ahead an authority as the LCC it is sad to find in one scheme after another of theirs very little attempt at club-making or social life except such as can be picked up casually in public houses. The idea of being a lonely lost person, whenever one lives in a London block of flats or on a vast lay-out of similar houses on a straight or curved road, is one that is being given up in most places outside the metropolis.

Lastly, there are two smaller schemes of which I am going to say nothing, for I had, of course, a little to do with them. They are two of the eight so-called Reilly Communities (43) and (44), either being built or about to be built at Bilston, one by William Crabtree, of Crabtree and Johnson, and the other by Bernard Miller, the Liverpool architect, who builds the fine churches.

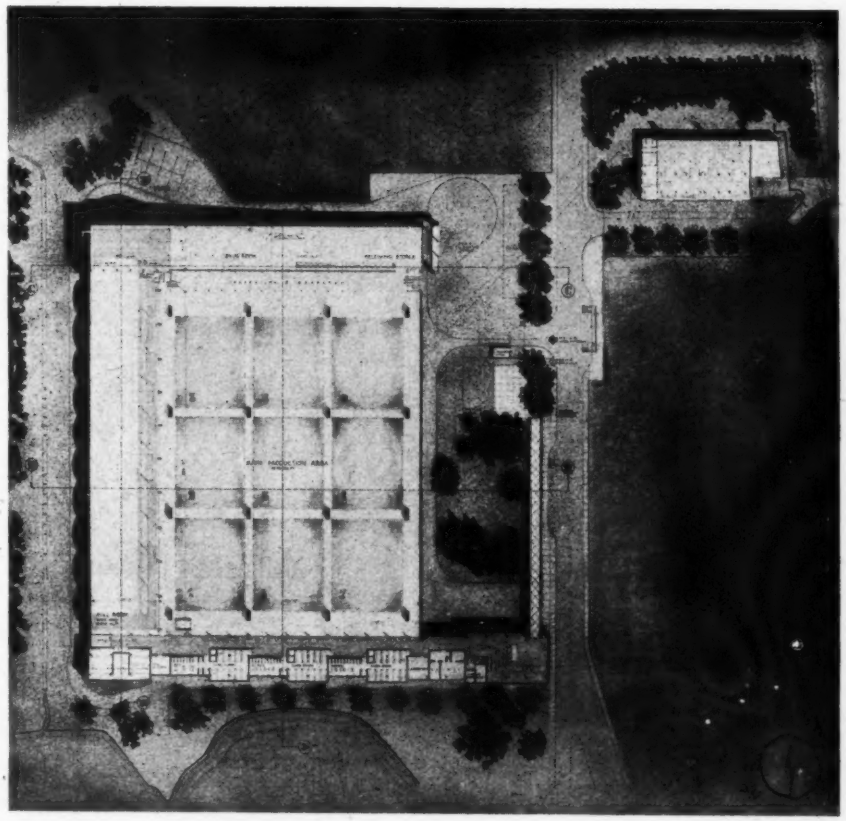
On this and the following pages we publish a selection of projects most of which are dealt with by Sir Charles Reilly in his survey. Some of these as well as others submitted will be illustrated more fully in forthcoming issues. The numbers in Sir Charles' article correspond to those below.

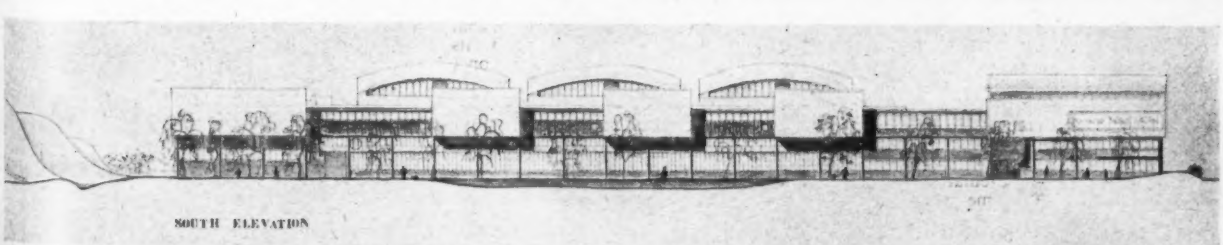
INDUSTRIAL



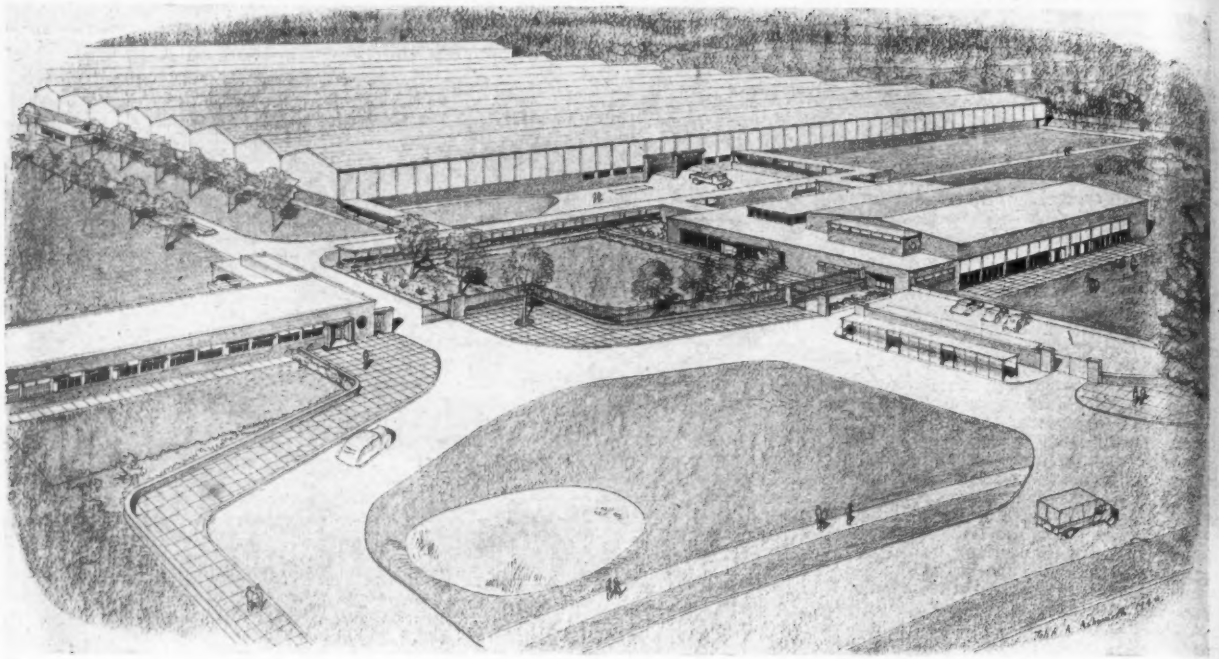
I. *Rubber factory in South Wales by Architects Co-operative Partnership; Ove Arup, consulting engineer. The shell concrete domes each cover 6,300 sq. ft.*

I



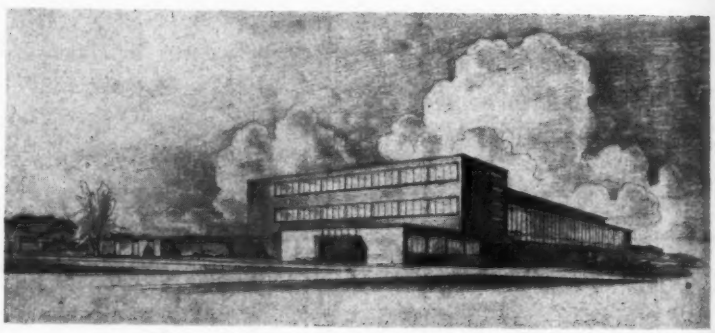


SOUTH ELEVATION



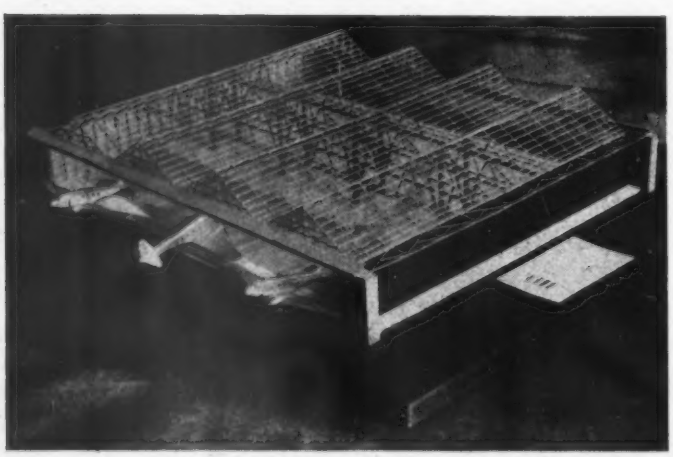
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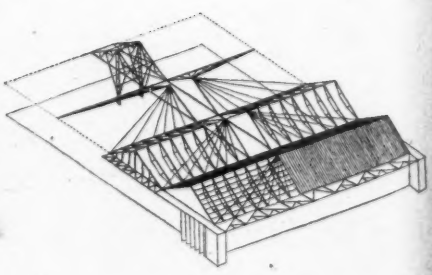
2. *Factory at Hindley Green, Wigan, for Messrs. Turner Brothers Asbestos Co., by the Grenfell Baines Group. Designed by Messrs. Ashworth and Fletcher. Steel frame with brick 7 ft. 0 in. high curtain walls and asbestos above. Reinforced asbestos roof with wall-board lining. Standard truss construction. Canteen and offices are of steel frame, brick walls and pre-cast roof.* **3.** *New factory in Suffolk by Martin J. Slater; chief assistant, Birkin Haward. The construction is reinforced-concrete frame and floors with brick panel walls.* **4.** *Aircraft hangar for British European Airways, by Christopher Nicholson. Consultant engineer, Felix J. Samuely. The diagram shows the structural system.*



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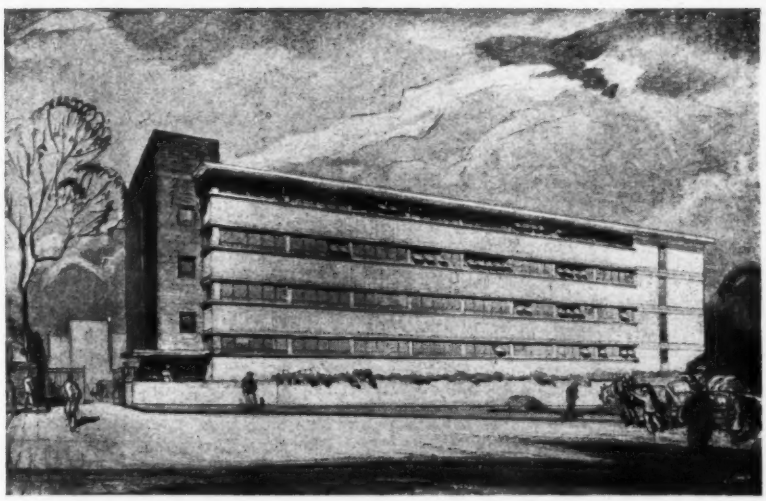






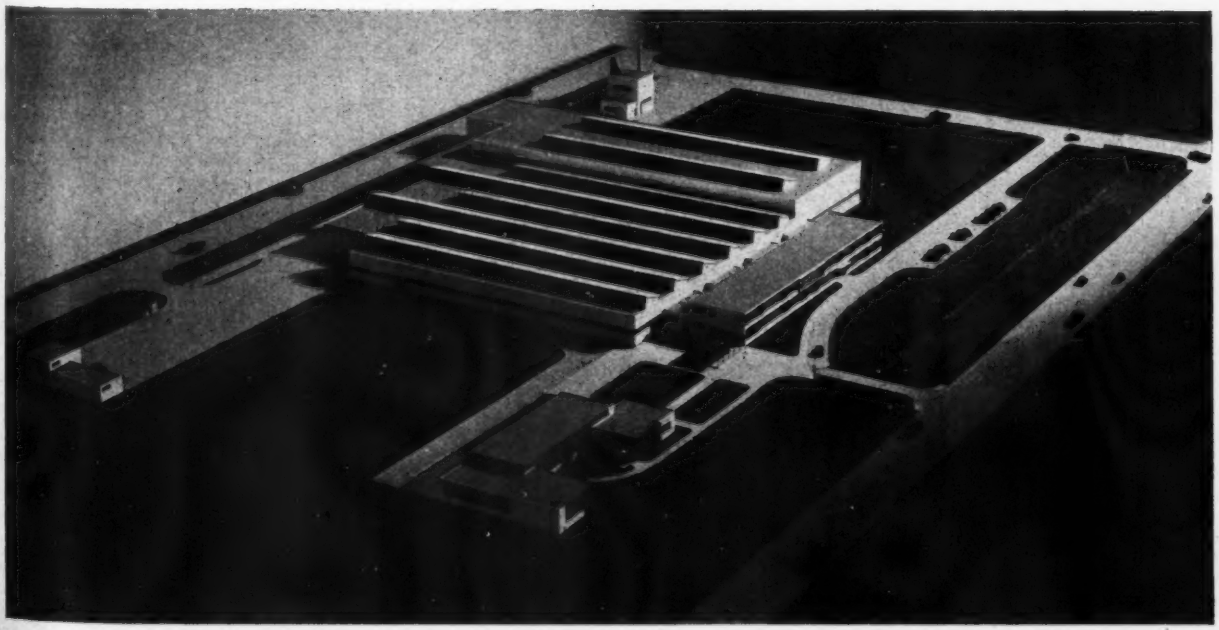
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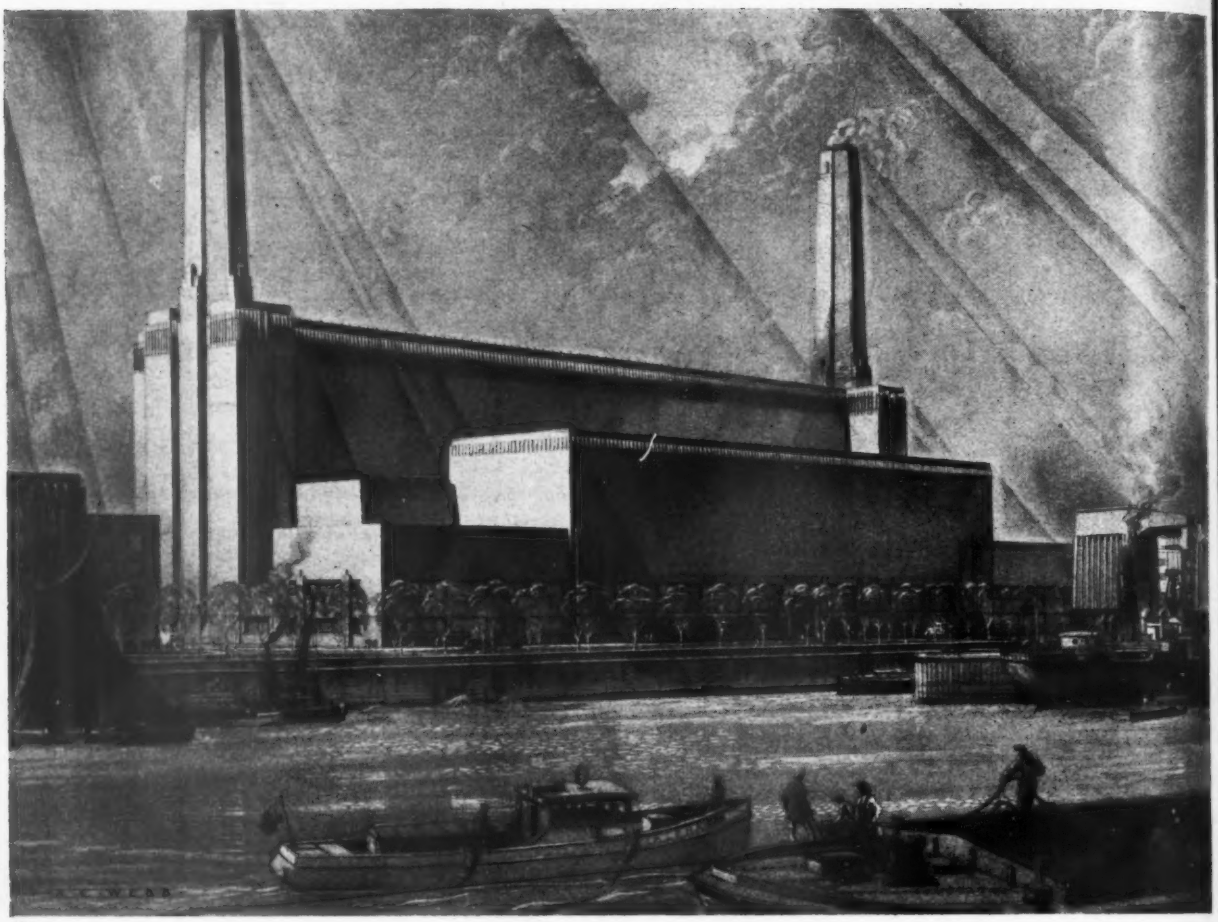
5. Factory for Beechams Pills, Ltd., St. Helens, by William and J. Basil Ellis; chief assistant, H. Norcliffe. **6.** *Bakery and warehouse, St. Teresa Site, Plymouth, by Sir John Burnet, Tait and Lorne.* **7.** *A factory on the North Eastern Trading Estates, by Yorke, Rosenberg and Mardall.*



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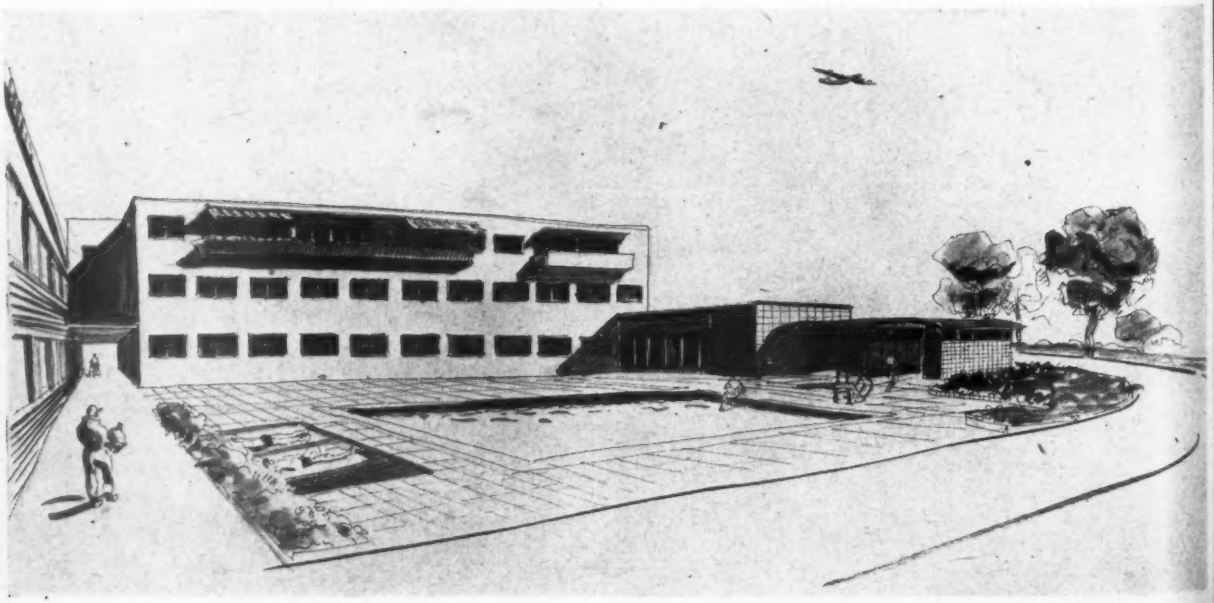


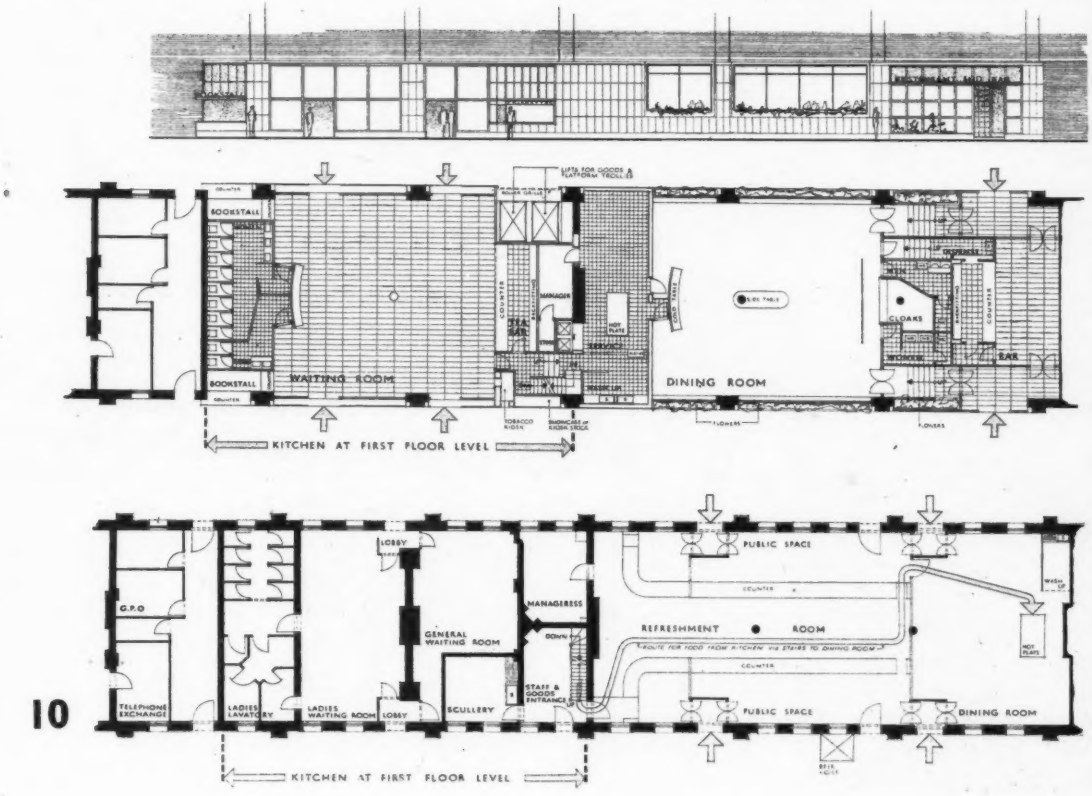


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8. *Tentative proposal for a power station on the Thames, by Sir Giles G. Scott.* **9.** *Extensions to factory for Aero Research Limited, Duxford, by Hughes and Bicknell. Provides general offices, first-aid and rest-room, lecture theatre, research laboratory, canteen for 200, directors' dining-room and kitchen. The swimming pool is for the use of the staff.*

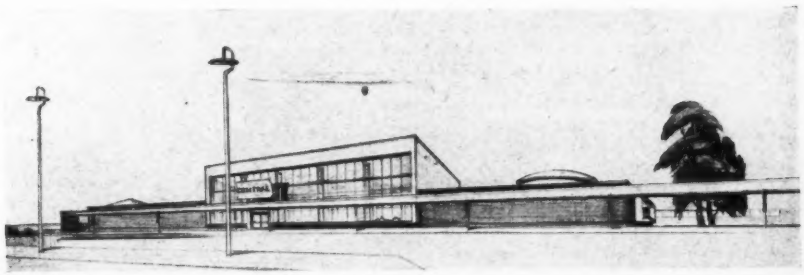
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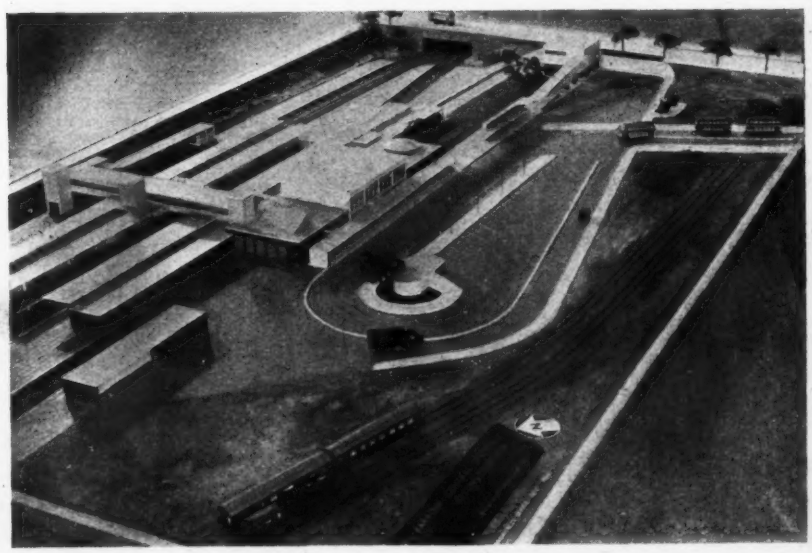




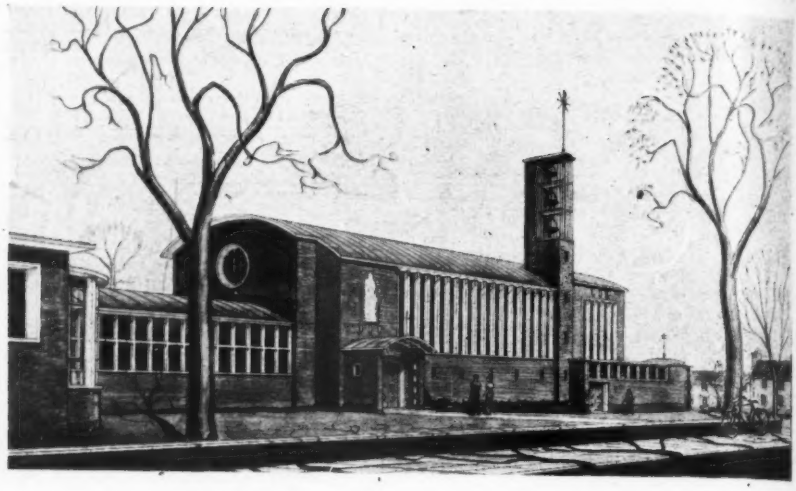
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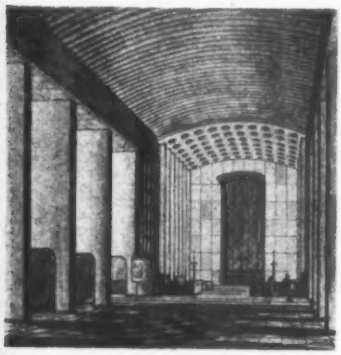




10. *Reconstruction of the refreshment room and waiting rooms at an important Junction, by the Architect's Department, LMS Railway. Above, plan and elevation as remodelled; below, plan as existing. The existing structural envelope is largely re-used.* **11.** *Reconstruction of Barrow Central Station by the Architects' Department, LMS. There is rigid separation of the working part of the station from the public part. Vans have a separate entrance to the parcels yard and from there parcels can be conveyed to the various platforms across the parcels section of the bridge leading to the platforms. Above, perspective of the entrance; below, photograph of a model.*

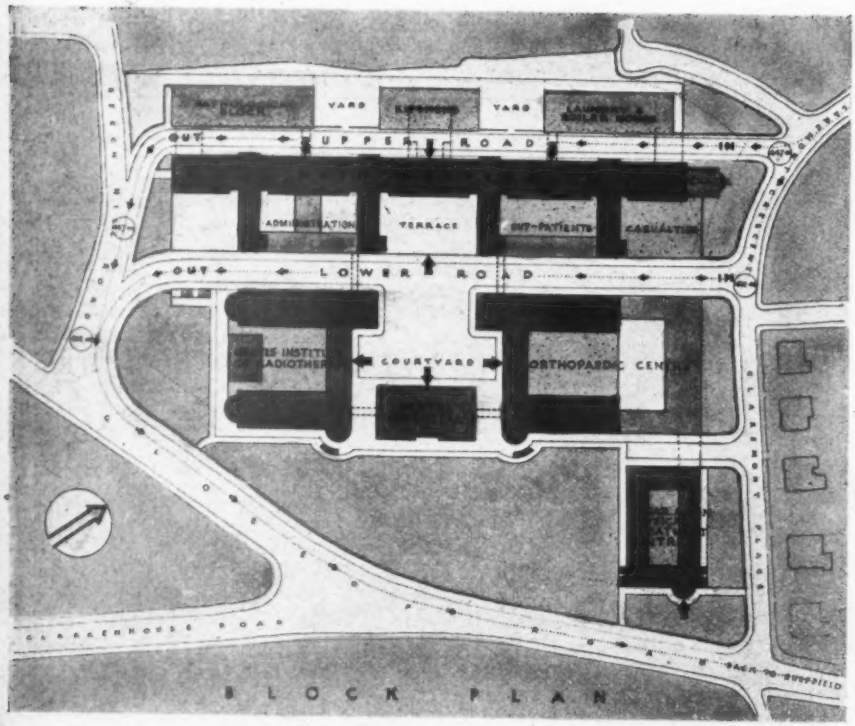


Church and Hall at Darlaston, Staffs., by Lavender and Twentyman.



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HOSPITALS

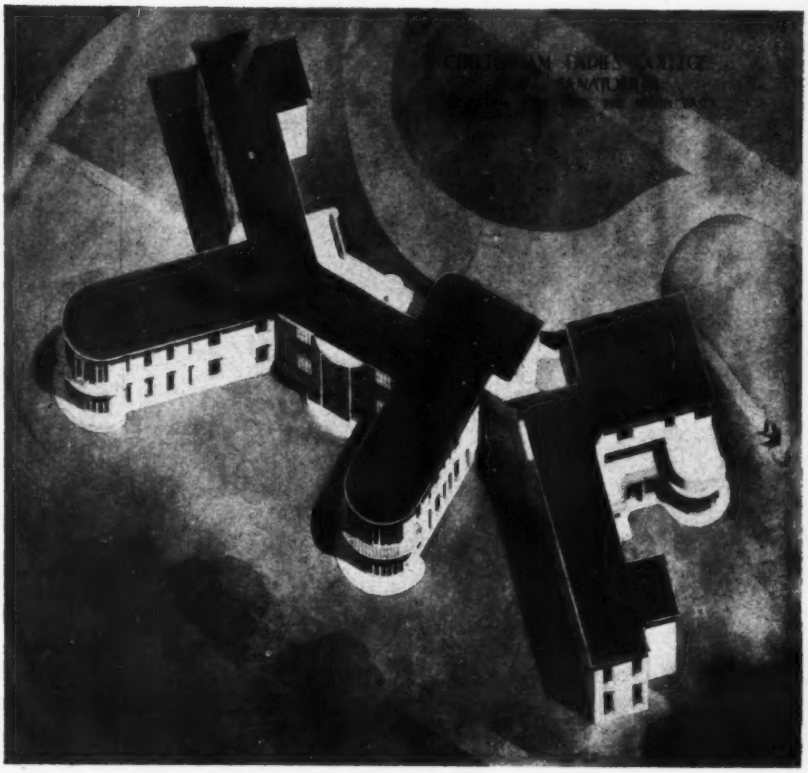


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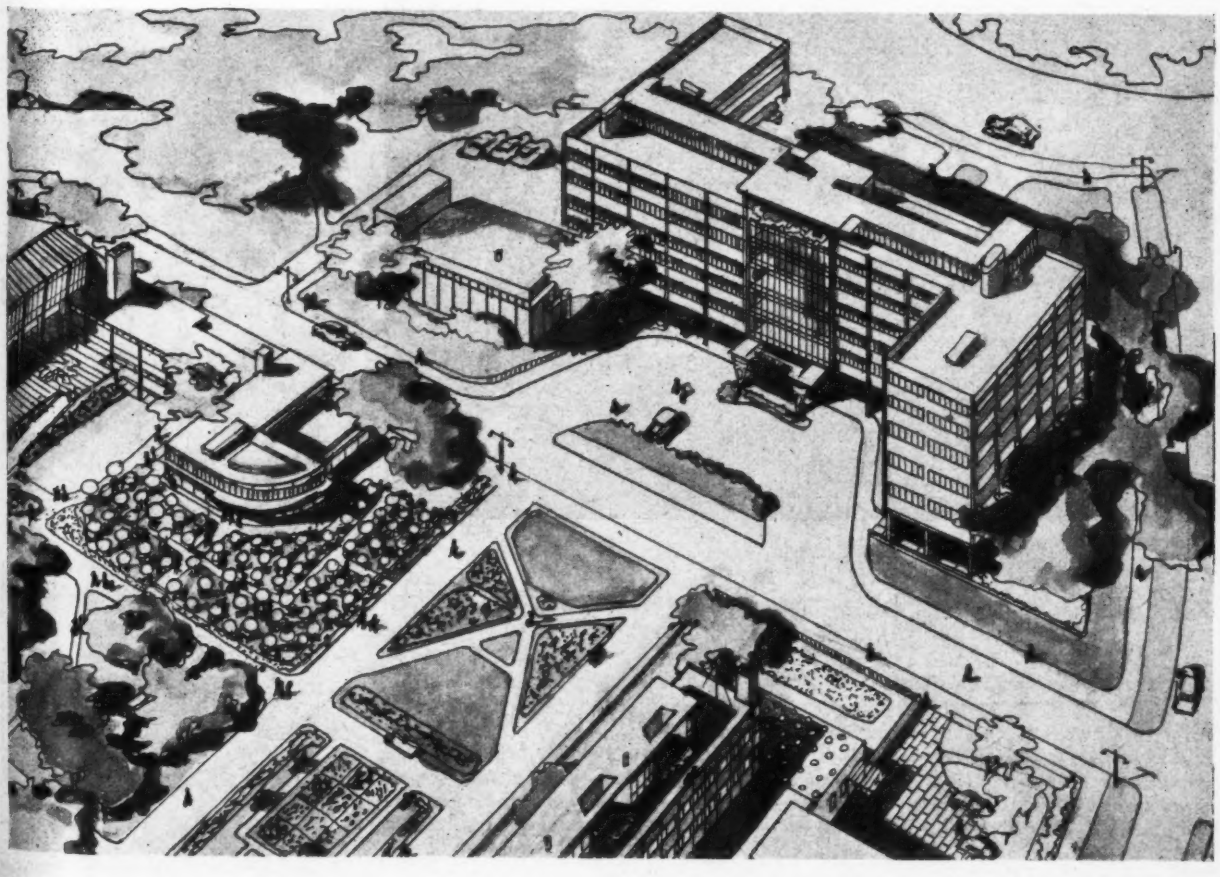
13. *The Royal Sheffield Infirmary and Hospital, by Adams, Holden and Pearson. This scheme was a winning competition design in 1940. The layout of the roads has since been revised to keep all the entrances off the main Glossop Road.*

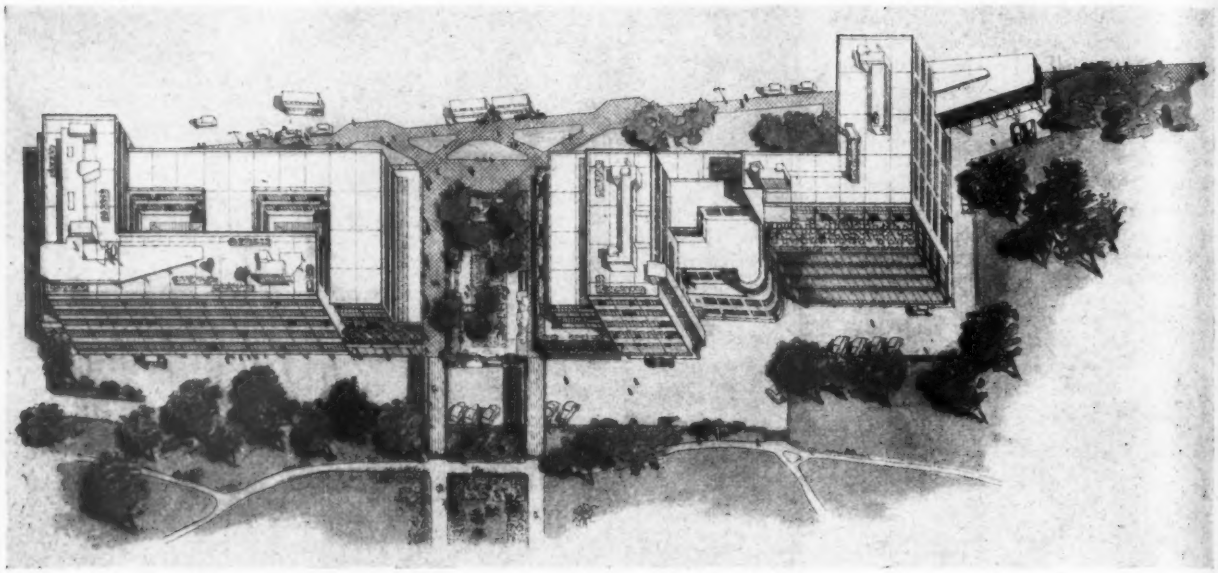
14. *New Sanatorium for Cheltenham Ladies College by Knapp-Fisher, Powell and Russell.* **15.** *Health Centre for the Borough of Southampton by Johnson and Crabtree in collaboration with Denis Winston, Borough Architect, and H. C. Maurice Williams, Medical Officer of Health. In addition to various clinics, the building contains (two-storey block on left) accommodation for private practitioners, a lecture and concert hall, a day nursery and municipal laboratories.*



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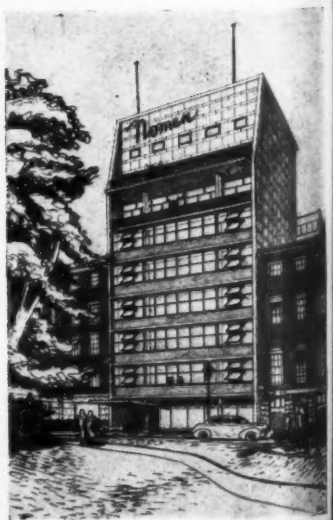


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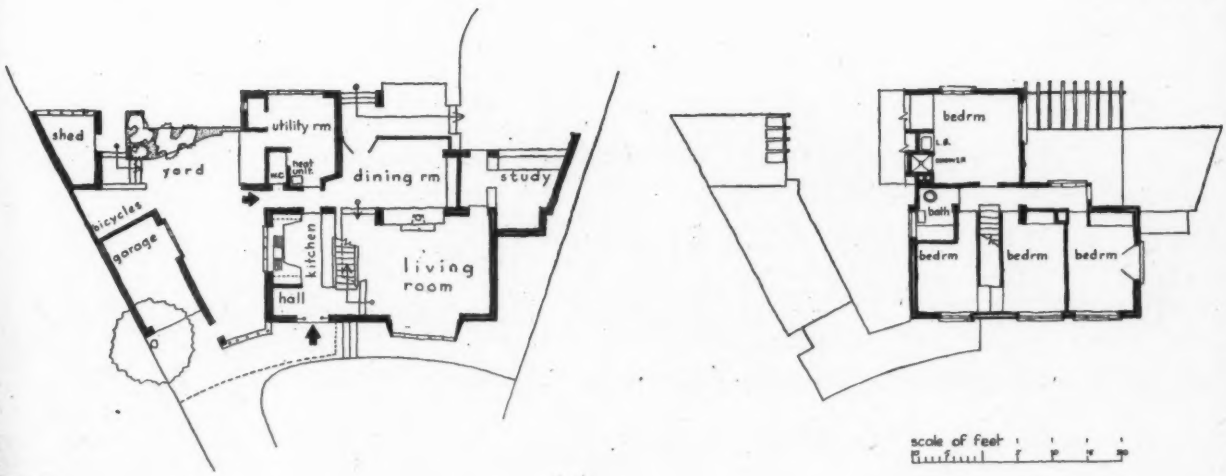


16. *Proposal for Shopping Centre at Guild Hall Square, Southampton, by Johnson and Crabtree, with D. Winston, Borough Architect, and* **17.** *Shopping centre for Plymouth, by Johnson and Crabtree. These two schemes are intended to give guidance to individual merchants and their architects who wish to have premises in the shopping centres. Upper and lower roads are proposed in both these schemes allowing the segregation of the various types of traffic.* **18.** *An office building in Soho Square, by McGrath and Oxley.*



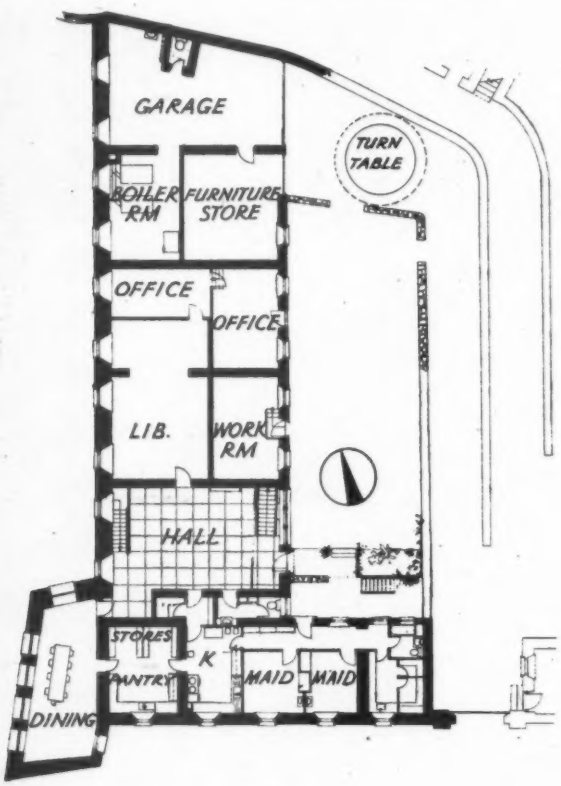
19 *New factory and head office for Messrs. Freeman Hardy and Willis at Leicester, by Sir John Brown and A. E. Henson.*

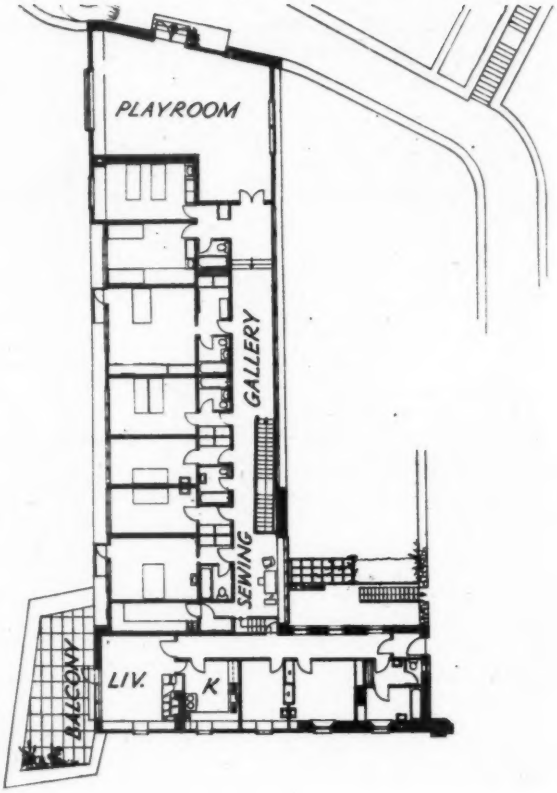
HOUSES

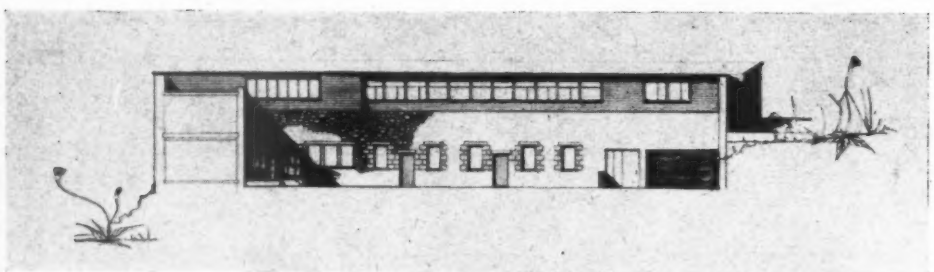


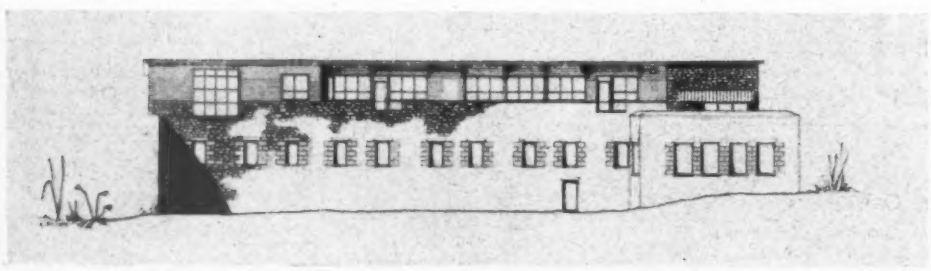
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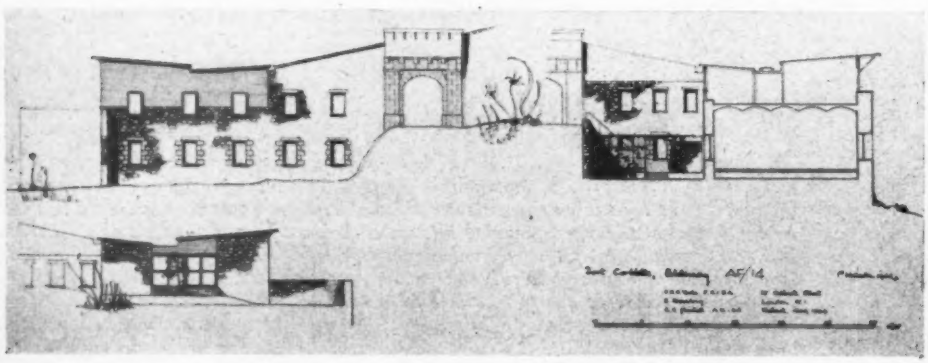
20. *House at Welwyn, by W. Allen. The house is designed to be built in two stages, the first (solid black) to be built within the present licensing regulations, and the second (hatched) to be built when circumstances allow. The house stands on a simple slab with an R.C. beam at the edges, spanning between short bored piles at intervals of 7 ft. This is a new foundation type especially suitable for clay soils. The ground floor will be heated by a pipe coil laid on a glass silk quilt on the floor slab, with a screed laid over the coil. Floor finishes are to be quarry tiles in kitchen and hall, and plywood in the living room. The floor surface temperature is to be 75 deg. There is also a fireplace of the Cheminée-de-Nancy type in the living room.*







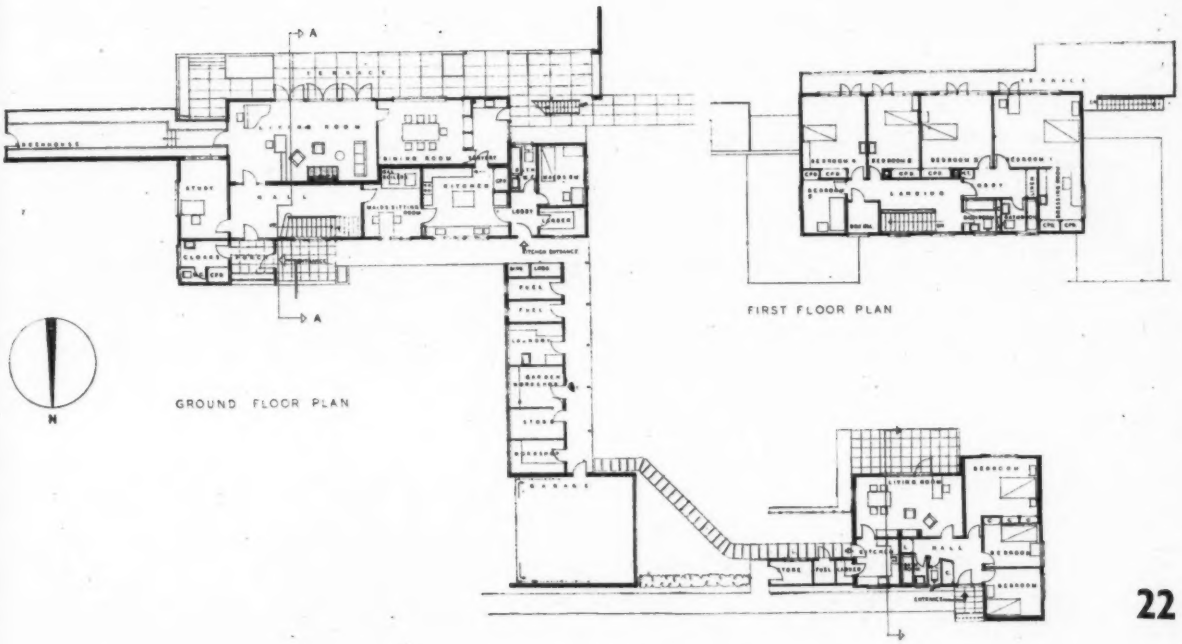




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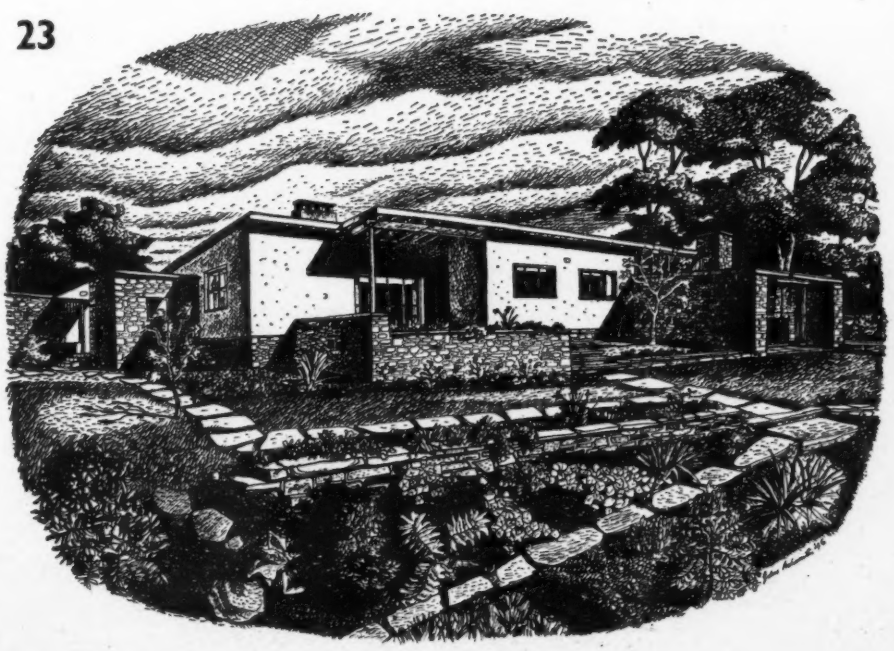
Conversion of a fort in Alderney, by Yorke, Rosenberg and Mardall. The ground floor is planned within the existing fort and provides for a library, dining-room, kitchen and maids' quarters. The first floor is to be built in light framed construction with tarred weatherboarding on the outside and will contain a flat for the owners, with accommodation for the children and guests along the gallery, which has a large play-room at the end. The bathrooms are top-lit.



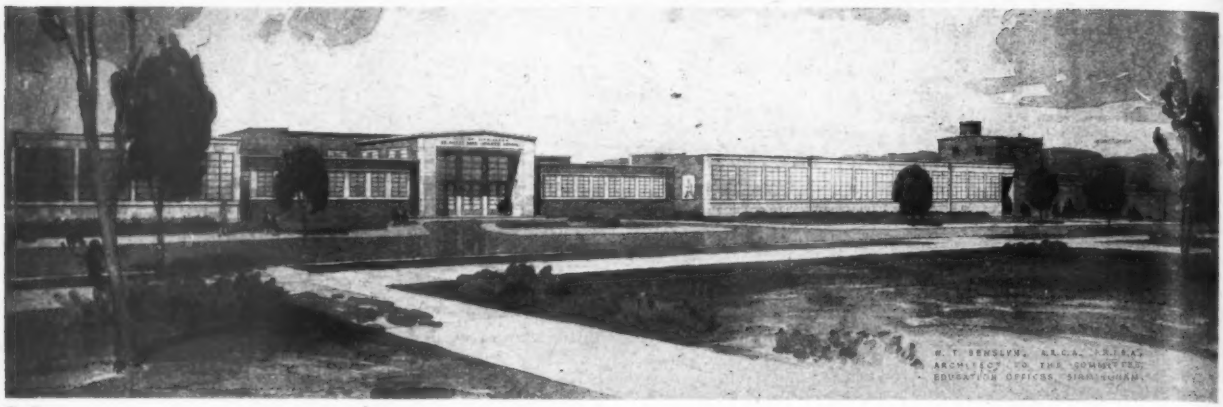


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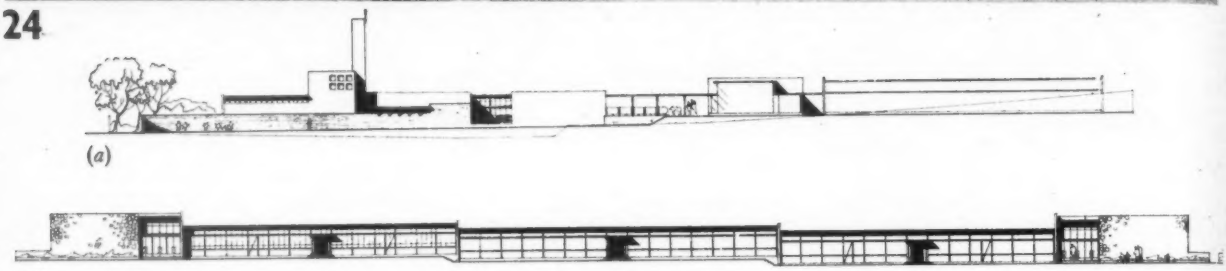
23



22. *Country house at Lymington for Sir Vyvian Board, by Bronek Katz of Katz and Vaughan. Brick and timber-framed construction with copper roof. A bungalow for the gardener-chauffeur forms part of the scheme.* **23.** *"One Acre," Chadwick Hall Road, Rochdale, by J. A. Ashworth, of the Grenfell Baines Group. The first part of this house has already been built; the foundation walls are in stone, with 11 in. cavity bricks over, rendered in Tyrolean. The roof is of asphalte on boarding and wooden joists, Tentest insulation being used.*



24



(a)

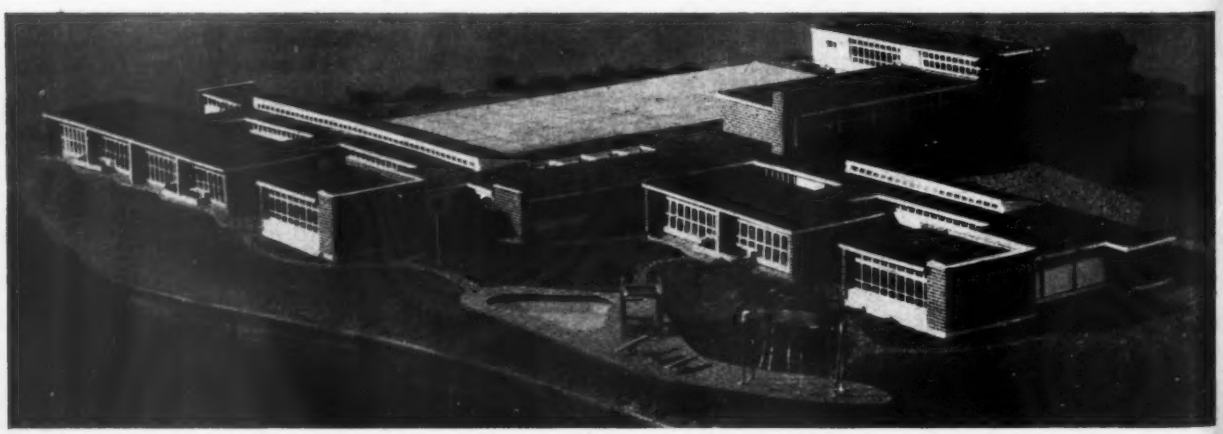
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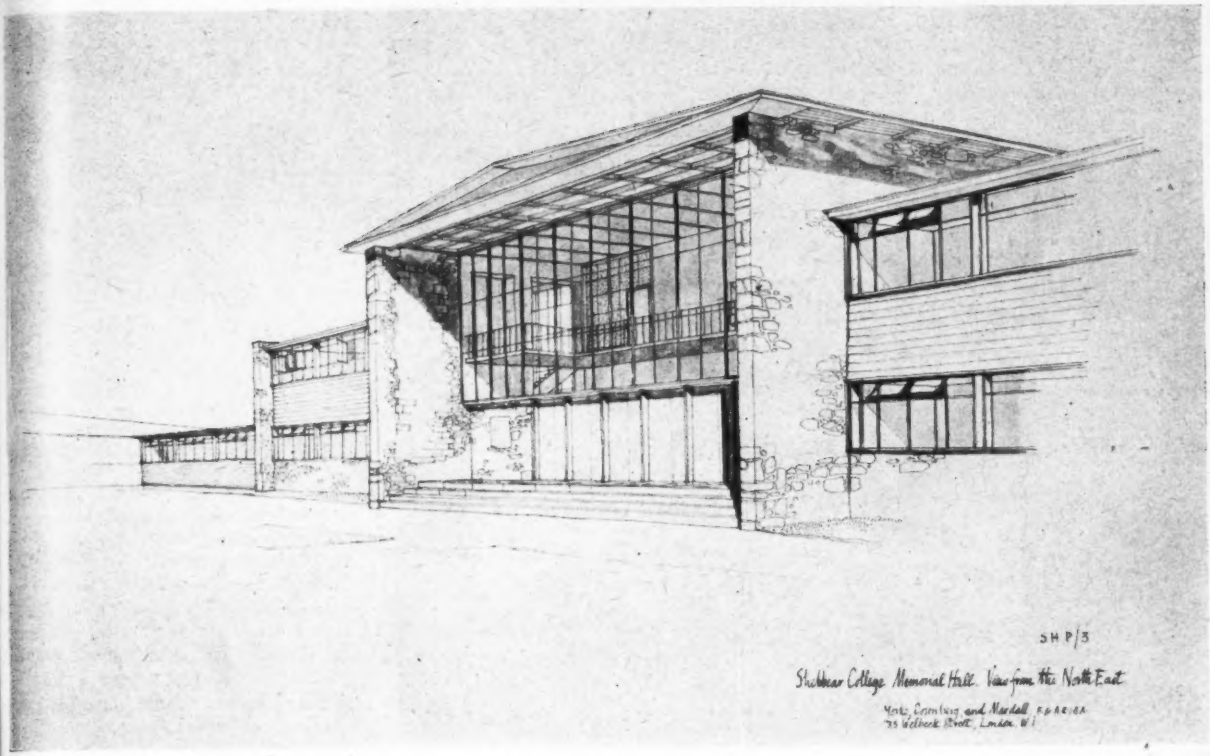


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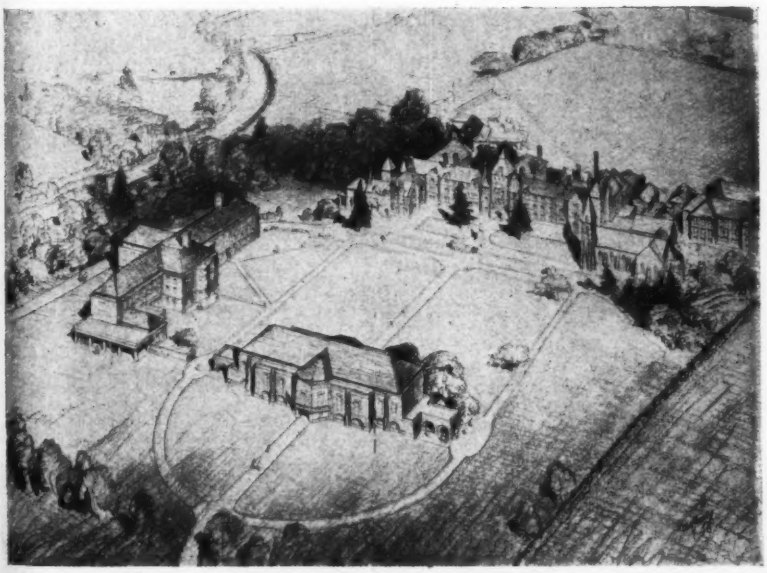
24. *Infants' School for 230. Delhurst Road, Birmingham, by W. T. Benslyn, architect to the Birmingham Education Committee.* **25.** *Junior Boys' and Girls' School for 640 for the Middlesex County Council by C. G. Stillman, County Architect. Above: Elevations (a) showing classrooms on the right; and administration on the left; and (b) looking towards the classroom unit showing the corridor windows, assembly hall for girls at the left end and for boys at the right. Left, key plan showing arrangement of units.* **26.** *Primary School at Ormesby, Yorkshire, by Denis Clarke Hall. This school, to be built in standard elements, will accommodate 320 pupils. A paddling pool and an equipped play area is to be provided, as the model shows.*

26



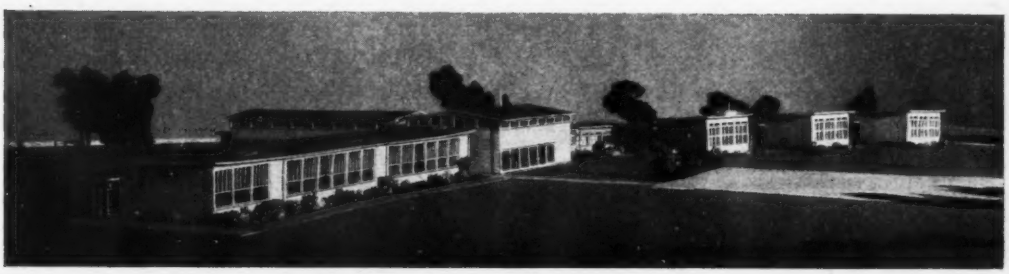


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28

27. *Suggestion for a memorial hall and extension of teaching accommodation at Shebbear College, by Yorke, Rosenberg and Mardall. Entrance to the hall.* **28.** *Framlingham College, Suffolk. New Junior House (on left) and Speech Room, with Music School and Gymnasium (bottom centre), by A. B. Knapp-Fisher. The buildings will be in brick with tile roofs.* **29.** *Junior and Infants' School at Cheshunt, by the County Architect's Department, Herts County Council. Assembled from steel units with concrete roof blocks forming the horizontal tie. Columns are fixed to independent concrete foundations. The foamed slag concrete roof is covered with felt. Warm air heating is used throughout. Accommodation: 120 infants, 200 juniors.*

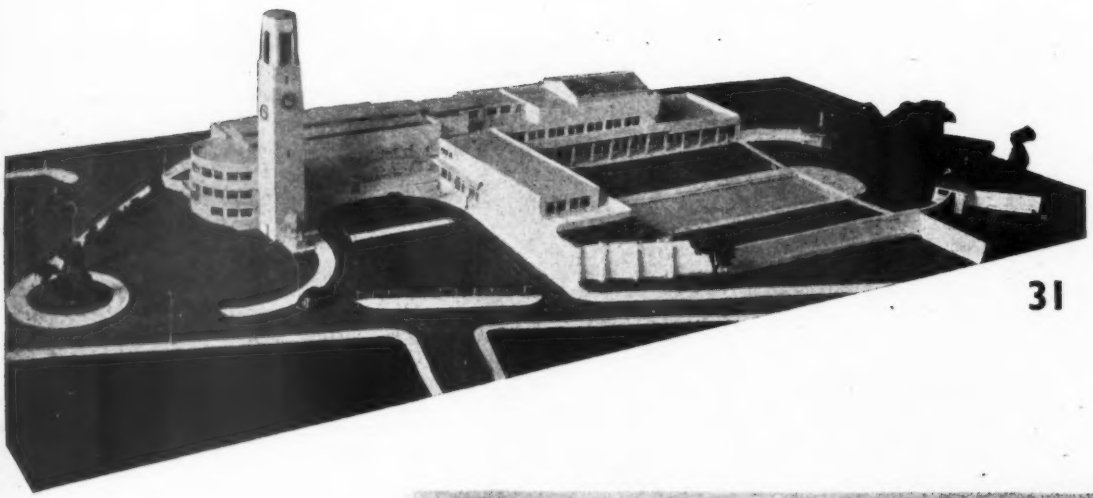


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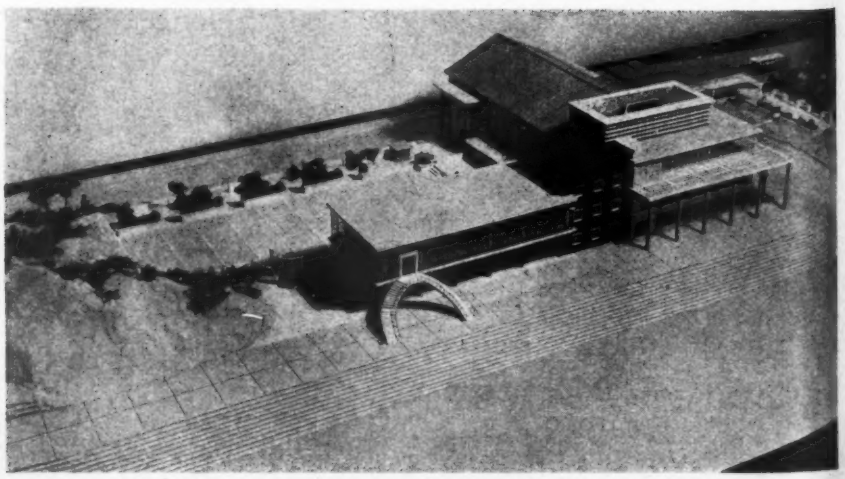


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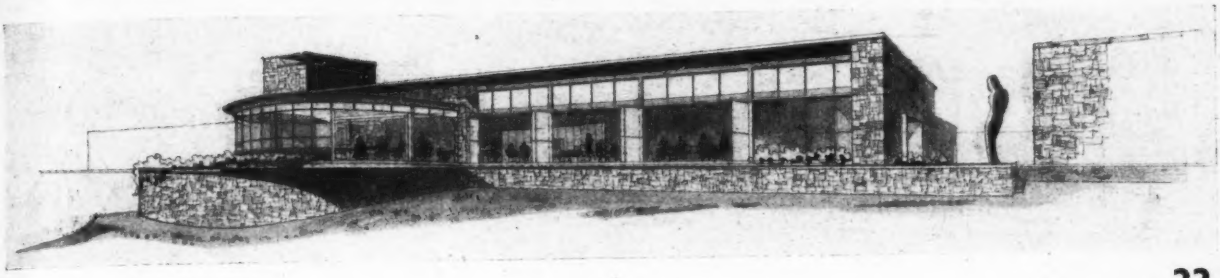
30. *Sailors' Home and Red Ensign Club, Dock Street, London, E.1, by Brian O'Rorke and Colin Murray. The building provides, in addition to club rooms and restaurant, 307 bedrooms for officers and men.*
31. *Community Centre on the Barnet By-Pass, by Keith Braden. The building includes a hall to seat 1,200; a large wall decoration is suggested above the entrance.*
32. *Pavilion for Mablethorpe and Sutton Foreshore Planning Scheme, by G. A. Jellicoe, contains theatre, dance hall, restaurant and two cafés.*



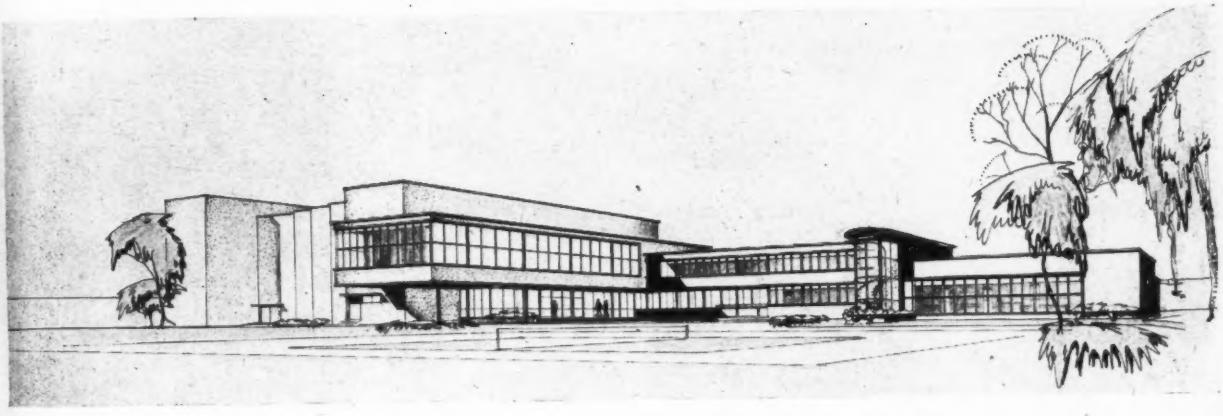
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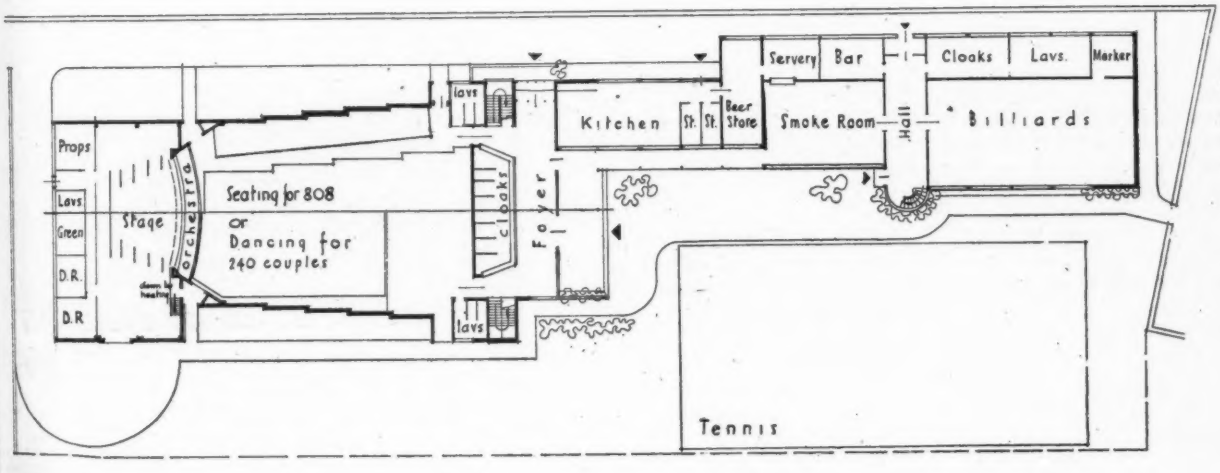


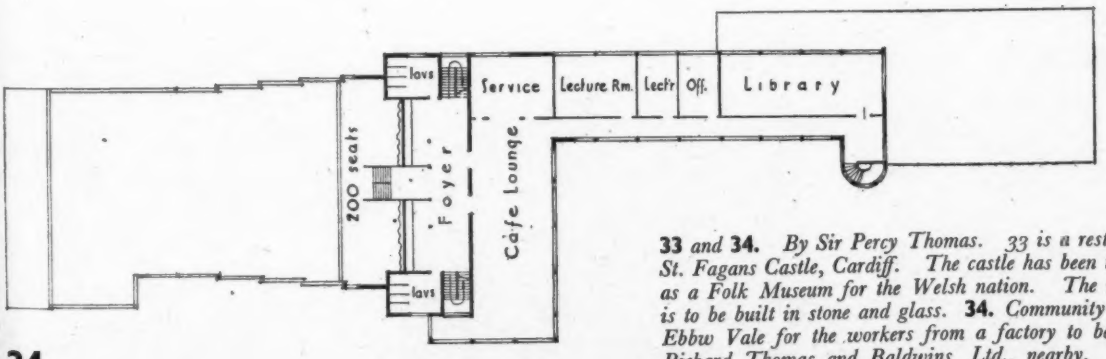
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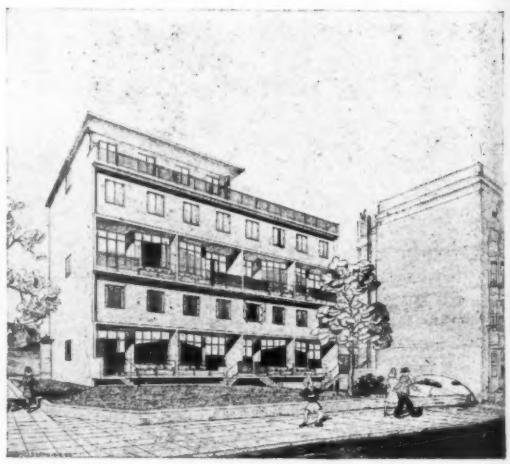
34

33 *and* **34.** *By Sir Percy Thomas. 33 is a restaurant at St. Fagans Castle, Cardiff. The castle has been taken over as a Folk Museum for the Welsh nation. The restaurant is to be built in stone and glass.* **34.** *Community Centre at Ebbw Vale for the workers from a factory to be built by Richard Thomas and Baldwins Ltd., nearby. Above, a perspective looking toward the foyer of the Hall ; centre, ground floor plan, and bottom, first floor plan. The gallery to the Hall will seat 200.*





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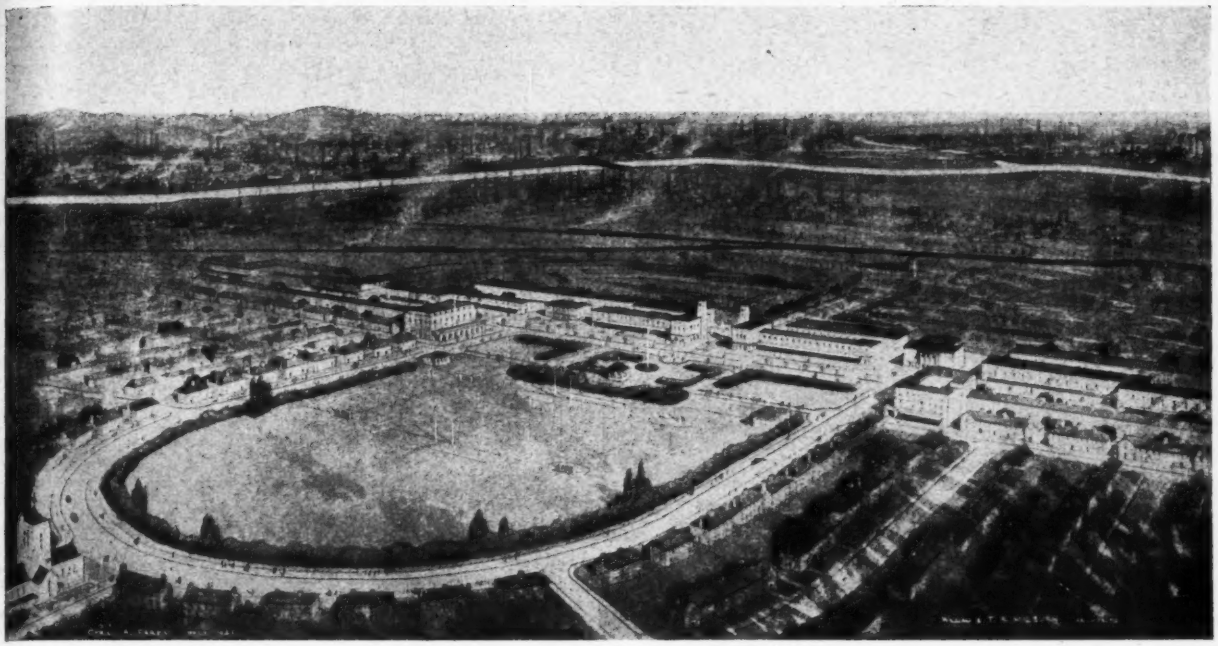


36

35. *Housing for the Brynmawr Housing Society, South Wales, by Yorke, Rosenberg and Mardall. The two-storey houses are placed parallel with the contours of a steeply sloping site. Three-storey blocks of flats are at right angles to the terrace houses and overlook the main access road.* **36.** *Maisonettes at Kenmure Road, Hackney, by Edward D. Mills; consulting engineer, Ove Arup. There are eight maisonettes with living room and three bedrooms.* **37.** *Flats at Busaco Street, for Finsbury Borough Council, by Tecton. The blocks are to be built of reinforced concrete and special steel shuttering will be used. The infilling panels are to be built in different materials to give an interesting and varied texture to the whole scheme. Ove Arup is the consulting engineer.*



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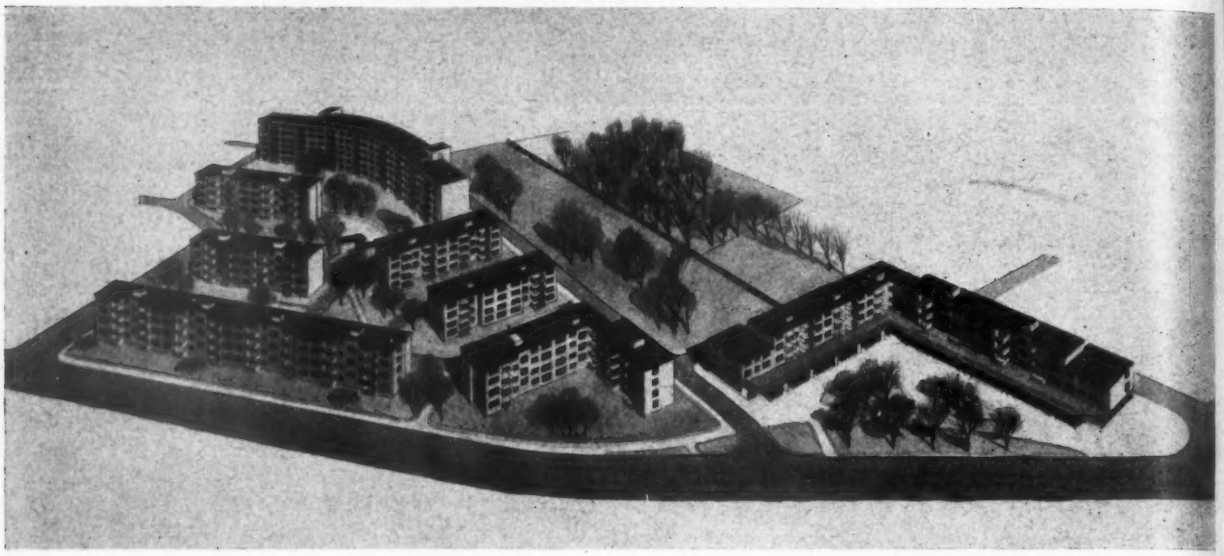
38

38. *Extension to Billingham, by W. and T. R. Milburn. The scheme includes a church, which can just be seen at the bottom left-hand corner, town hall, community centre (with the towers in the centre), library, health centre, and facing one another across the gardens a cinema and a big hotel.*
39. *Flats at Brixton Hill, by Clifford E. Culpin. The majority of the blocks are of seven and eight storeys and will provide 48 maisonettes and 356 flats. The site is to include a day nursery (DN), a nursery school (NS), an equipped playground for the children (PG), a covered playground (CP) and two public houses. The buildings on the site will be heated by a district heating scheme.*

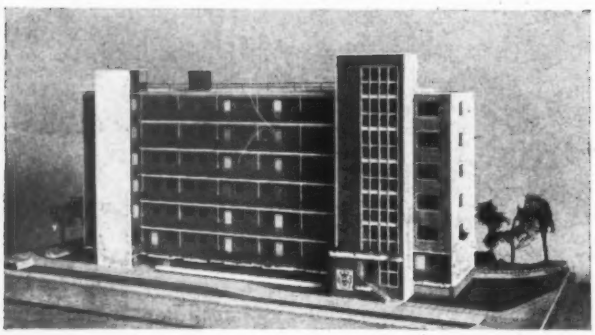


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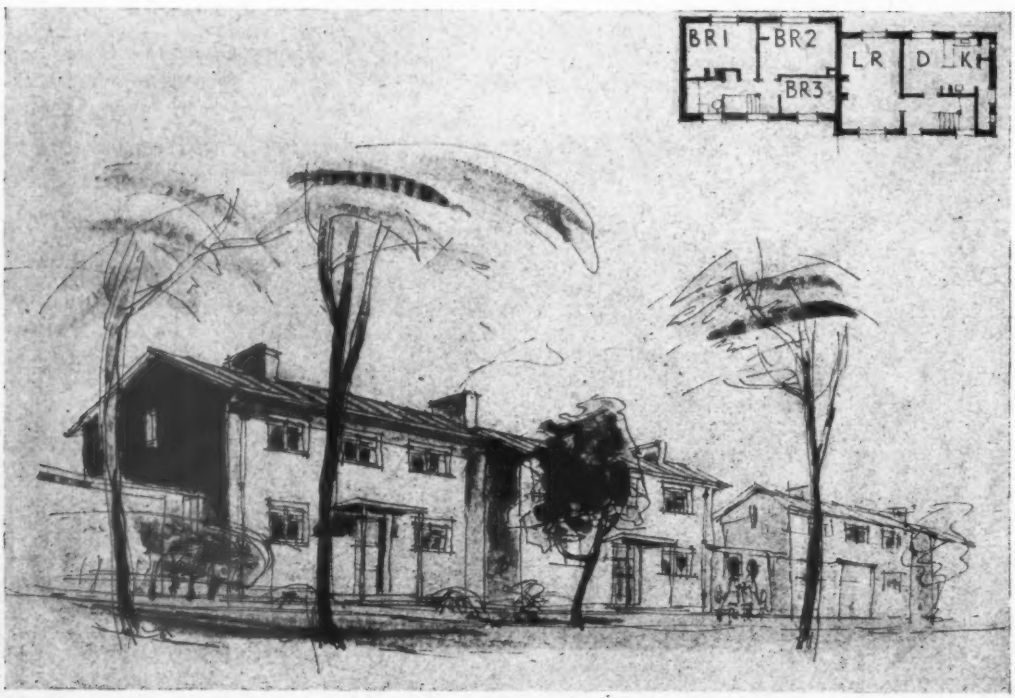


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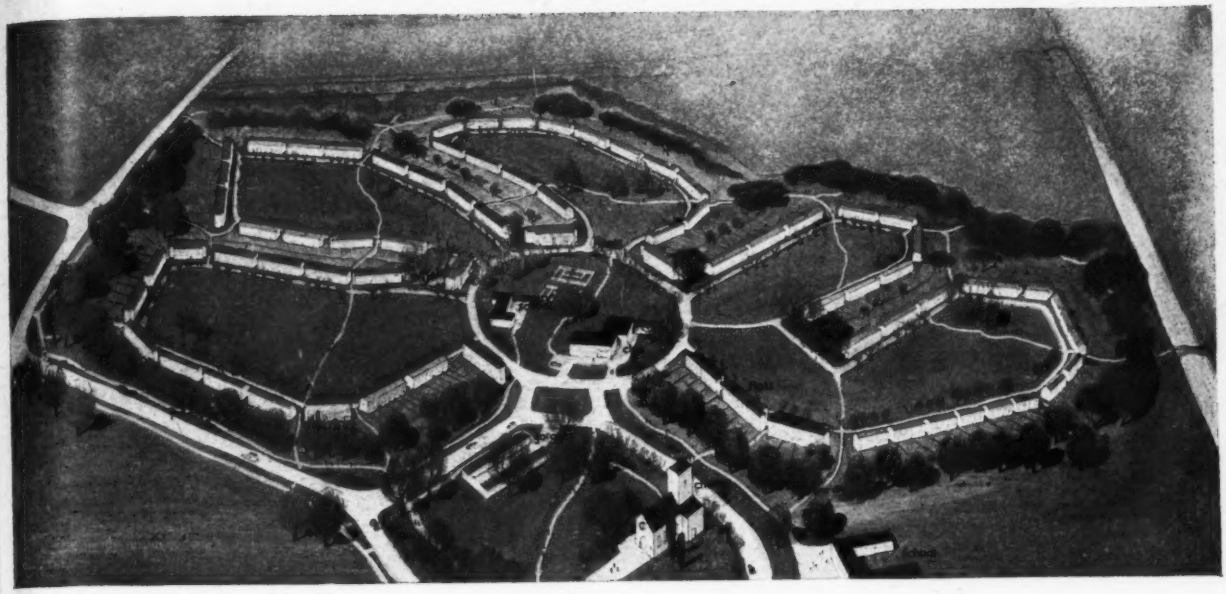


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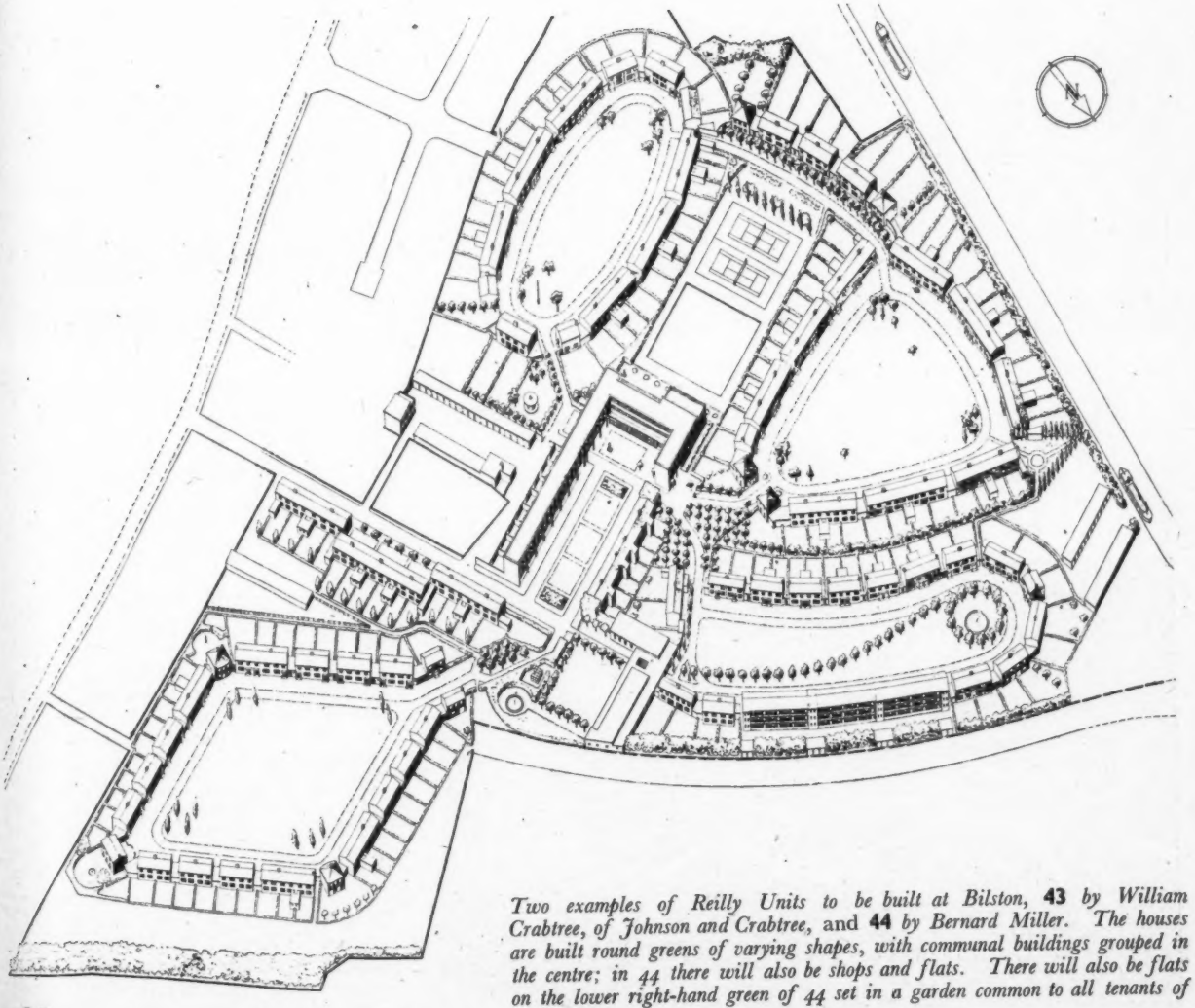
40. *Housing at Deptford for the LCC, by Derek Bridgwater and Peter Shepheard; assistant, Miss B. Guttery. The scheme provides 218 flats, 16 shops and two public houses. The flats are in four-storey walk-up blocks with one seven-storey block with lifts. The shopping centre with flats over is set back from the main traffic road.* **41.** *Flats at Cromer Street, St. Pancras, London, by Hening and Chitty. The illustration shows a model of one block out of twelve for the completed scheme, which will provide 274 flats, two rebuilt public houses, a nursery school and gardens.* **42.** *Houses with copper roofs at Cradle End, Little Hadham, for the Braughing Rural District Council, by Mauger and May.*



42

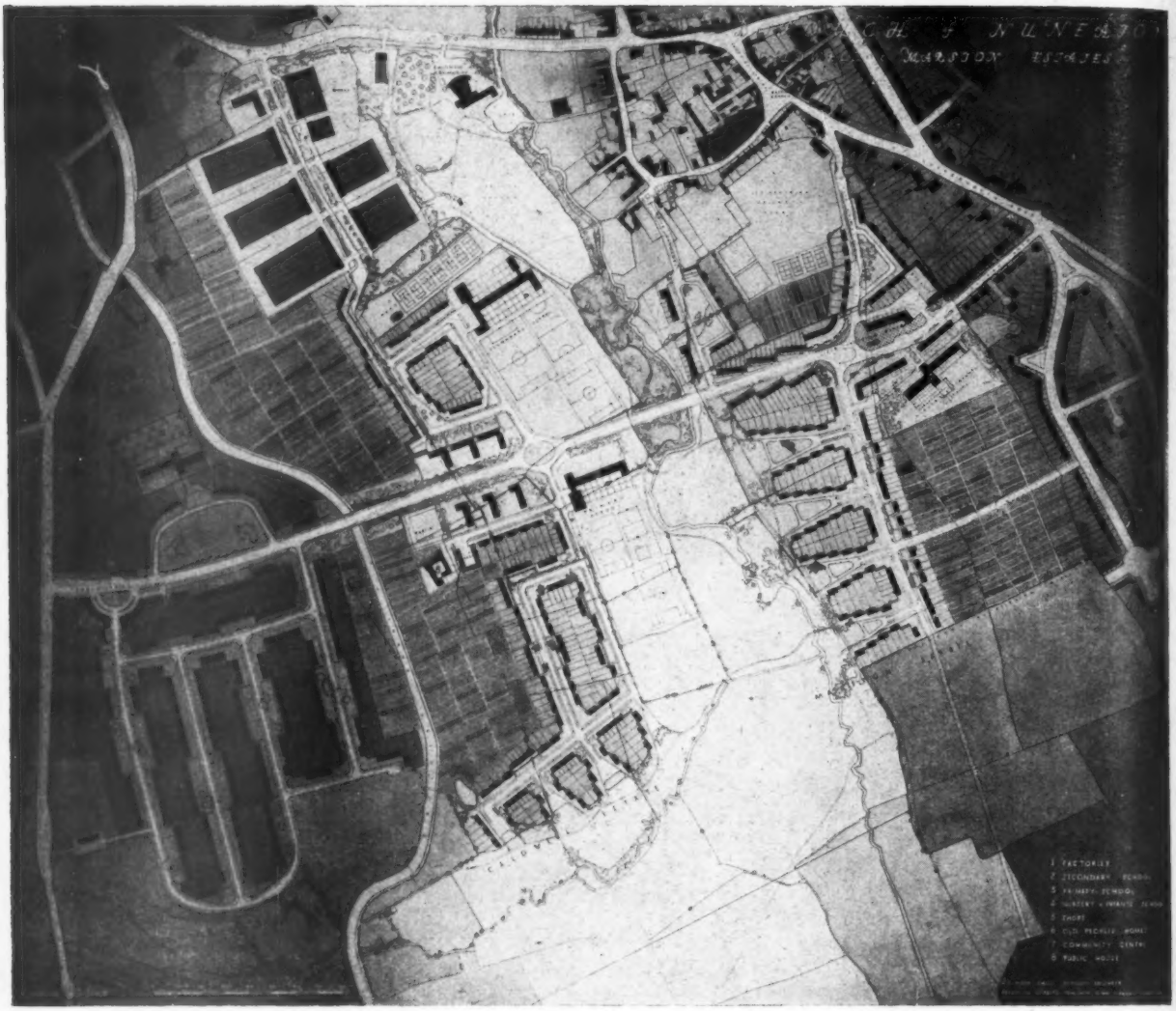


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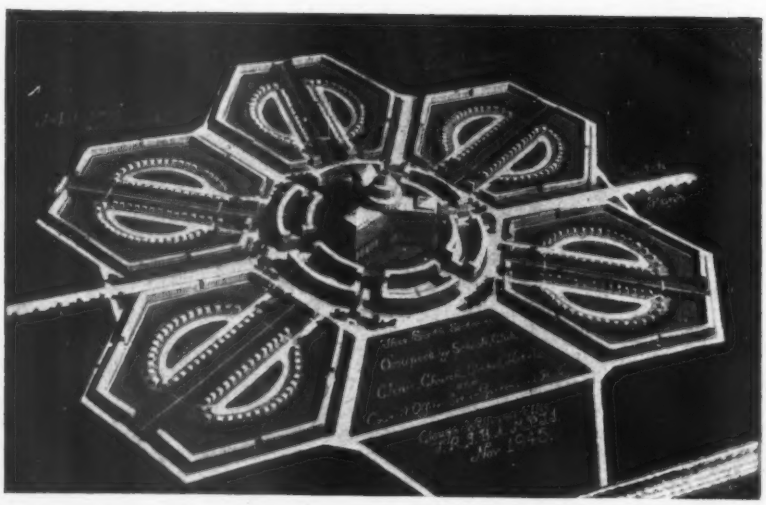
44

Two examples of Reilly Units to be built at Bilston, **43** *by William Crabtree, of Johnson and Crabtree,* and **44** *by Bernard Miller. The houses are built round greens of varying shapes, with communal buildings grouped in the centre; in 44 there will also be shops and flats. There will also be flats on the lower right-hand green of 44 set in a garden common to all tenants of the flats.*



45

46



45. *Caldwell and Marston extension to the Borough of Nuneaton, by R. C. Moon, Borough Engineer, and Frederick Gibberd, Town Planning Consultant. The centre of the site is kept free of building as it is a beautiful natural valley with a stream running through it. This green wedge connects with an existing open space on the north which extends to the heart of the town. Traffic is excluded from this green wedge. (See frontispiece for illustrations of the model of this scheme.)* **46.** *Melcomb Satellite Town for 4,000 inhabitants, by Clough Williams-Ellis. This scheme is designed for temporary as well as permanent housing, the former being gradually replaced. The temporary houses are round the segmental greens in each hexagonal sector.*

INFORMATION CENTRE INDEX—1946

All items which have appeared in Information Centre during 1946 are classified below. Title, source, brief digest and reference number with day and month on which the full digest and commentary appeared in the Journal are given under their appropriate main and sub-headings.

ACOUSTICS and Sound Insulation

INSULATION : GENERAL

Isolation of Sound in Buildings. *R. R. J. Tinkham.* (*Arch. Record, May*, 1946, *p.* 114.) Terminology, planning, insulation principles and practice. Reduction values for walls. (*No.* 2734 : 19.9).

MUSIC IN HOSPITALS

The Place of Music in Healing. *H. Burris Meyer and R. L. Cardinell.* (*Journal of the Acoustical Society of America, January*, 1946, *p.* 232.) Survey of present use. Suggested approach. (*No.* 2597 : 20.6).

NOISE REDUCTION : INDUSTRY

Effects of Noise in the Textile Industry. *W. Schweisheimer.* (*Rayon Textile Monthly* [*USA*]. *November*, 1945, *pp.* 93 *and* 98, *respectively.*) Shapes of music shells. Relation between shell and seating area. Summary of 30 music shells in Canada and USA. (*No.* 2450 : 21.3).

REFLECTION DESIGN

The Acoustics of Music Shells. *H. L. Kamphaefner.* (*Pencil Points, September and October*, 1945, *pp.* 93 *and* 98, *respectively.*) Shapes of music shells. Relation between shell and seating area. Summary of 30 music shells in Canada and USA. (*No.* 2450 : 21.3).

SOUND PROOFING : CONSTRUCTION

Demountable Sound-Proof Rooms. *W. S. Gorton.* (*Journal of the Acoustical Society of America, January*, 1946, *p.* 236.) Steel and composition-board construction in demountable panels. (*No.* 2595 : 20.6).

The Effect of Position on the Acoustical Absorption by a Patch of Material in a Room. *C. M. Harris.* (*Journal of the Acoustical Society of America, January*, 1946, *p.* 242.) Absorbents best placed at corners or edges of rooms. (*No.* 2596 : 20.6).

SOUND REPRODUCTION

A High Quality Loudspeaker of Small Dimensions. *P. W. Klipsch.* (*Journal of the Acoustical Society of America, January*, 1946, *p.* 254.) New design of horn loudspeaker for domestic and general use. (*No.* 2615 : 4.7).

EQUIPMENT

COOKERS : GAS AND ELECTRIC

Gas and Electric Cookers. *Ministry of Health* (*Supplement to Circular* 76/46 *to Local Authorities.*) How Ministry of Supply is concluding production of Blanket Order agreements with various industries to ensure adequate production of various articles for housing. (*No.* 2638 : 25.7).

DISH AND CLOTHES WASHER

Combined Dish and Clothes Washer. *Trade Literature.* (*The Hurley Machine Co.* (*England*), *Ltd., 55; Oxford Street, London, W.*1.) Known as Thor Automatic Washer. First combined dish and clothes washer. (*No.* 2583 : 6.6).

DOMESTIC ELECTRICAL INSTALLATIONS

The Design and Installation of Electrical Accessories for Domestic Purposes. *F. C. Fuke.* (*Journal of the Institute of Electrical Engineers, April*, 1945, *Part II.*) Contacts, switches, fuseboards. (*No.* 2374 : 7.2).

A Consumer's Service Unit. *Booklet.* (*Standard proposed by the British Electrical Development Association.*) Specification valuable incentive towards tidying up of electric control gear in small houses. (*No.* 2422 : 7.3).

A Consumer's Service Unit. (*Trade Note, October*, 1945.) Description of unit design closely to follow BEDA Standard (see No. 2422 above) by British Insulated Callender's Cables, W. T. Henley's Telegraph Works, and Revo Electric Co. (*No.* 2423 : 7.3).

Domestic Plugs and Sockets. (*Electrical Review, March* 8, 1946.) Industry to standardise 3 kw (13 A.) socket-outlet. (*No.* 2639 : 25.7)

DOMESTIC GAS APPLIANCES

Domestic Gas Appliances for Immediate Post-War Housing. Part I. *General Specification, including Space and Rating Requirements. British Standard* 1250 : *Part I* : 1945. (*British Standards Institution*, 2*s.* 0*d.*) Eventually to be in two parts. Present Part I deals with essential dimensions and rating requirements of cookers, sink water heaters, bath water heaters, multi-point heaters, laundry boilers, fires, flueless space heaters, refrigerators and other apparatus. (*No.* 2704 : 29.8).

KITCHEN FITMENTS

Kitchen Fitments and Equipment. *British Standard* 1195 : 1944. (*British Standards Institution.*, 2*s.* 0*d.*). Part 1: Overall Space Dimensions for all Equipment of Kitchens. Part 2 : Standard Storage Units based on Recommendations of Part 1. (*No.* 2421 : 7.3).

LIFTS

Electric Lifts for Passengers, Goods and Service. *Draft British Standard Code of Practice*, 1946. (*British Standards Institution*, 2*s.* 0*d.*) Covers electric passenger, goods and service lifts. Guidance on conditions which govern choice of equipment and location. Structural requirements. (*No.* 2729 : 19.9.)

LIVING AND BEDROOM FITMENTS

Storage Fitments for Living Rooms and Bedrooms. *BS* 1292 : 1945. (*British Standards Institution*, 2*s.* 0*d.*) Part I, overall dimensions for clothes storage units, bookshelves and living room cupboards. Part II gives series of standard units based on Part I. Third part on construction to follow. (*No.* 2582 : 6.6).

PREFABRICATED EQUIPMENT UNIT

Prefabricated Mechanical Equipment. An American Assembly. (*Utility Unit by Ingersoll Steel Division, Borg-Warner Corporation, Chicago. Trade Brochure.*) Claimed to be coming into production for low-cost housing, this elaborate unit contains warm air furnace, water heater, sewer stack and vents, water, gas and electric services, space for water softener, bath, shower, basin, w.c., sink, refrigerator, and accessories. (*No.* 2641 : 25.7).

REFRIGERATORS

Installation of Vapour Compression Domestic Electric Refrigerators. *B.S. Code of Practice. Draft for Comment*, 1946. *General Series Code* 3.6443. (*British Standards Institution*, 1*s.* 0*d.*) Installation requirements for free-standing and inset machines. Space and weight of standard types. Ventilation, water and electric supplies. (*No.* 2740 : 26.9).

SCHOOL FURNITURE

Anthropometrics and the School Desk. *Research Handbook No.* 1. (*Educational Supply Association, Stevenage.*) Scientific approach to design of furniture. Results of investigations in schools by medical officers and others. Recommendations. (*No.* 2544 : 9.5).

Report of the School Furniture Industry Post-War Reconstruction Committee. *Presented to the President of the Board of Trade, March*, 1946. (*School Furniture Industry Post-War Reconstruction Committee*, 181, *High Holborn, W.C.*1.) Organization of industry. Reference to effect of design and standardization in production. (*No.* 2640 : 25.7).

SOLID FUEL GRATE

The Fulham Grate. (*The Gas Light & Coke Company. May*, 1946.) Pamphlet illustrating Fulham grate. Dimensions. Consumption figures and description. Use as convector and with back boiler for water heating. (*No.* 2728 : 19.9).

HEATING and Ventilation

AIR-CONDITIONING

Advantages of Windowless Air-Conditioned Court Rooms. *A. J. Daidone.* (*Lighting and Lamps, July*, 1944, *p.* 13.) Controlled lighting and air-conditioning. (*No.* 2389 : 14.2).

Air Filters. *Trade Literature.* (*Visco Engineering Co., Stafford Road, Croydon. Catalogue No.* 454.) General description and illustrations of standard static air filters and some descriptions of other types. (*No.* 2463 : 28.3).

Humidifying and Cooling in Textile and other Manufactures. *Stanley Smith.* (*Industrial Heating Engineer, October*, 1945.) Technical description of spray systems and conditioned air systems. (*No.* 2495 : 11.4).

The Reduction of Noise from Air-Conditioning Systems. *A. J. King.* (*Special Publication* 7906/8 *by Metropolitan Vickers, Trafford Park, Manchester.*) Fan and motor noise. Vibrations along duct walls. Fan noise in air-stream. Turbulence-noise in air-stream. (*No.* 2625 : 11.7).

Noise Ratings of Ventilating Fans. *W. H. Hoppmann and F. Lager.* (*Heating, Piping and Air Conditioning, the Journal of the American Society of Heating and Ventilating Engineers, February*, 1945, *p.* 85.) Article describing test methods. Insufficient data for architects. (*No.* 2876 : 26.12).

AIR POLLUTION : SURVEYS

The Leicester Air Pollution Survey. (*Report published by HMSO for DSIR.*) Interesting Report of Seven-Year Investigation. No startling conclusions, but valuable to Local Authorities. (*No.* 2438 : 14.3).

Soot-Fall Studies for New York City. *Joe Siegel and Benjamin Feiner.* (*Air Treatment Engineer, February*, 1946.) Report of soot-fall investigation. Tables showing monthly variations and district variations. Comparative figures for other USA towns. Table of analysis of solids deposited. Graph relating soot-fall to temperature and rainfall. (*No.* 2546 : 9.5).

DISTRICT HEATING

First Report of the District Heating Committee of the Institution of Gas Engineers. (*November*, 1945.) Conclusions : District heating practicable method of improving fuel economy and reducing smoke. In certain circumstances may be economical, but generally with lower densities of building this not so. Zonal heating of groups of buildings may be wiser. District heating has limitations of low temperature supply only, therefore no cooking or visible radiant heat. Restricts freedom of individual unless combined with other methods of heating. (*No.* 2350:31.1).

Why Zone Heating Systems ?. *W. J. Warren.* (*Pencil Points, July*, 1945.) Effect of solar radiation causing fluctuating heat requirements resulting in need for zoning. (*No.* 2388 : 14.2).

District Heating for Housing Estates. (*Smokeless Air* [*Smoke Abatement Journal*], *No.* 59, 1945.) General article seeking to show advantage and feasibility of district heating of housing. Reference to American schemes

particularly Virginia, Minnesota, where all town is thus heated. (*No.* 2425 : 7.3).

District Heating. *R. F. Brooks Grundy.* (*Architects' Journal, March* 28, 1946.) Consideration in terms of housing estates. Estimates of heat requirements and costs on 1939 basis. Emphasis on factors affecting economics. Overall fuel efficiency compared with other methods. Concludes district heat unlikely to be economical on 12 per acre density, but possible on denser development. Compares well for fuel efficiency with other methods. (*No.* 2559 : 16.5).

Winter Heating and Summer Cooling through Underground Mains. *R. B. Duncan.* (*Plumbing and Heating Journal, USA, April*, 1946, *p.* 52.) District heating (or group heating) progress to date in USA. Main application in large property developments in same ownership. Individual house owners prefer individual plants. Future for summer cooling plant. Account of project for 328 apartments now in progress. Water as ideal medium. Reversed return method preferred. (*No.* 2627 : 11.7).

DOMESTIC HEATING : GENERAL

Trends in the Design of Heating Installations for Domestic Purposes. *Prof. Sir Alfred Egerton.* (*Journal of the Institute of Heating and Ventilation Engineers, September/October*, 1945.) (*Report of paper delivered September* 20, 1944.) Lengthy paper of work and findings of DSIR Study Committee on Heating of Post-War Buildings. Much valuable information useful as pre-view of MOW Building Study. No. 19. (*No.* 2349 : 31.1).

Heating and Ventilation of Dwellings. *Post-War Building Study, No.* 19. (*HMSO*, 1945, 2*s.* 6*d.*) Reports of Committee of Building Research Board. 106 pages main report, 110 pages appendices. Basic requirements, quantity of heat, insulation, methods of heating. Much of description of basic requirements would apply equally to other types of building. Lengthy document, but one which housing architects must read. (*No.* 2476 : 4.4).

What's Ahead in House Heating. (*Architectural Record, December*, 1945.) General article on newer types of house heating in USA. No technical details but useful critical comments. Floor panels, ceiling panels, baseboard panels, metal chimneys, the chimney furnace, fires, warm air heating, solar heating, cooking systems, reverse cycle heating, fan cookers, attic ventilation. (*No.* 2562 : 16.5).

Domestic Fuel Policy. *Report by the Fuel and Power Advisory Council* (*HMSO, free*). 60-page report of great importance. Surveys whole field of fuel in relation to domestic heating, including construction of house, type of installation and smoke abatement. Action on lines recommended likely to cause revolution in heating in this country. Statistics of fuel consumption, statement on smoke abatement, comfort conditions and examination of electricity tariffs. Much of information and many recommendations follow lines of Egerton Report, Post-War Building Study No. 19 (see Inf. Centre No. 2476 : 4.4.46), but as shorter document this report easier to read. (*No.* 2602 : 27.6).

The Heating of Houses. *A. Parker.* (*Journal of the Royal Sanitary Institute, July*, 1946.) General paper on heating, cooking, hot water requirements and appliances. Useful comments in discussion. (*No.* 2722 : 12.9).

Heating and the Community. *A. C. Pallot.* (*Journal of the Royal Sanitary Institute, August*, 1946. *Vol. LXVI, p.* 294.) Review of domestic heating practice in this country and of Egerton Report standards in light of national fuel position. Suggested methods of improving heating standards based on use of MOW Heat Service Unit. Possibilities of district heating. Authoritative treatment. (*No.* 2848 : 12.12).

DOMESTIC HEATING : POWER

Domestic Power Installation. *A. N. Turner.* (*Electrical Times, September* 27, 1945.) Economical and efficient domestic circuit. (*No.* 2303 : 3.1).

Post-War House Wiring. *A. J. Heelis.* (*Electrical Times, September* 27, 1945, *p.* 387.) Wiring by PVC, MICC, lead sheath, screwed tube, grip tube methods. (*No.* 2304 : 3.1).

DOMESTIC HEATING : SYSTEMS

Ministry of Works Heat Service Unit. (*MOW Press Notice.*) Short description of requirements and factors affecting house heating economy and efficiency. Description of MOW unit, essentially prefabricated unit including space to fit various types of modern fires and stoves. Includes hot tank, drying cupboard, fuel storage and air convection to bedrooms. (*No.* 2525 : 25.4).

Heat and Hot Water for Small Houses. *Brochure by G. N. Haden and Sons*, 19-29, Woburn Place, W.C.1. (*Folder RD* 6.) System comprises boiler or openable stove with hot water storage immediately over and arranged as economiser with flue pipe passing through it and auxiliary electric or gas heating. (*No.* 2534 : 2.5).

One Source Heating. *Designed by Walter Segal and G. R. Jackson.* (*Building, March*, 1946.) Standard unit designed to fit into standard house plan and to provide warmth in every room. Solid fuel boiler in centre of house, visible to two rooms, fired from third and giving panel heating to two bedrooms from flue gases. (*No.* 2539 : 2.5).

All-Purpose Service Unit for Small Two-storeyed Dwellings. (*Architects' Journal, March* 14, 1946.) Heating, cooking and hot water unit by Building Component Producers Association in conjunction with British Coal Utilization Research Association. Fire in living room to burn any type of coal. Oven heated by warm air. Auxiliary cooking by electricity. Converted warm air heating to bedrooms. (*No.* 2547 : 9.5).

DOMESTIC HEATING : TESTS

An All-Weather Test Penthouse. (*Plumbing and Heating Journal, USA, February*, 1946, *p.* 68.) Account of test rooms for domestic heating trials. Weather and temperature recording apparatus used. Comparisons of domestic space heating by coal, oil, and gas. Experiments on automatic control of domestic heating. (*No.* 2538 : 2.5).

ELECTRIC HEATERS

Thermovent Electric Heater. *Trade Literature.* (*E. K. Cole, Ltd.*) Post-war models of electric converter heaters of built-in or free-standing type. (*No.* 2545 : 9.5).

FLUE PIPES

Asbestos Cement Spigot and Socket Flue Pipes and Fittings (Heavy Quality) for Heating and Cooking Appliances. *British Standard* 835 : 1945. (*British Standards Institution*, 2*s.* 0*d.*) Dimensions and tolerances. Workmanship. Hydraulic test. Water absorption test. Recommended methods of fixing and jointing. Fittings and diagrams. (*No.* 2302 : 3.1).

Pre-Cast Concrete Flue Blocks for Gas Fires and Ventilation. *BS* 1289 : 1945. (*British Standards Institution*, 2*s.*) Quality of materials and mix and workmanship. Detailed standardization of size both of flueway and external dimensions of all blocks required for normal conditions. Diagram of arrangement of blocks in typical chimney. (*No.* 2557 : 16.5).

Cast Iron Spigot and Socket Flue or Smoke Pipes. *British Standard* 41 : 1946. (*British Standards Institution*, 2*s.*). Cast iron flue pipes, bends and offsets of internal diameters from 4 in. to 20 in. Full details of dimensions and some guide to quality. (*No.* 2723 : 12.9).

GAS : COMMERCIAL USES

Modern Swimming Pool and Laundry Technique. (*Circular from Gas Industry House, S.W.*1, *January*, 1946.) Describes all gas heating equipment for recently completed swimming baths and laundries at Gateshead-on-Tyne. Details of equipment and of gas consumption per annum. (*No.* 2429 : 7.3).

Commercial Uses for Gas. *W. Johnson and W. F. Moore. Paper to Institution of Gas Engineers at* 83*rd Annual General Meeting, June*, 1946. (*Published by Institution of Gas Engineers as Communication No.* 297.) Intended primarily as guidance to gas companies on methods of sales propaganda. Deals in detail with bakeries, fish frying shops, hotels and restaurants, hairdressers, and less fully with gas heating and hot water supplies to variety of commercial and municipal buildings. Some useful information. (*No.* 2682 : 22.8).

GAS : DOMESTIC USES

Installation of Gas Heated Appliances for Laundering and Ancillary Domestic Purposes. *British Standard Code of Practice. Draft for Comment. Second Proof*, 1946. (*British Standards Institution*, 2*s.*) Recommendations for provision, siting and installation of wash boilers, washing machines, drying and airing cabinets, airing cupboard heaters, burners for ignition of solid fuel, small portable gas appliances such as boiling burners, irons, pokers, grillers, kettles. (*No.* 2628 : 11.7).

GAS : INDUSTRY

The British Gas Industry, Present and Future. *Joan Mitchell.* (*Fabian Publications Research Series No.* 103, 1*s.*) Useful 32-page review of industry as it is, its problems and plans for future. (*No.* 2462 : 28.3).

HEAT CONTROL SYSTEMS

Fuel Saving by Thermostatic Control. *A. Leslie Longworth.* (*Air Treatment Engineer, October*, 1935.) Lengthy article examining the principles involved, refers to work of various other investigators. Valuable article though intended for heating engineers rather than architects. (*No.* 2478 : 4.4).

Simple Control Systems for Industrial Heating, Ventilating and Air Conditioning Plant. *M. R. Morton.* (*Industrial Heating Engineer, October*, 1945.) Brief description with diagrams of methods of manual and automatic control for ventilation, plenum heating and air conditioning. Cooling plant. (*No.* 2494 : 11.4).

HEAT PUMPS

The Heat Pump : Notes on Some Swiss Installations. *B. Wood.* (*Electrical Review, May* 3, 1946.) Description of some heat pump installations in Switzerland and impartial consideration of reasons for their economic success. (*No.* 2623 : 11.7).

The Norwich Heat Pump : Experience with Experimental Plant. *John A. Sumner.* (*Electrical Review, May*, 3, 1946.) Trial installation put in during wartime. First example in this country. Author claims scheme is commercially sound and figures show strikingly low fuel consumption. (*No.* 2624 : 11.7).

HEATING AND VENTILATION : GENERAL

Heating and Ventilation for Architects and Builders. *R. K. Cornell.* (*Paul Elek Publishers, Limited*, 7*s.* 6*d.*) Intended for architects and builders. Useful quick survey. 56 pages. (*No.* 2681 : 22.8).

Questions and Answers on Heating. *L. C. C. Rayner.* (*George Newnes, Ltd.*, 1946, 5*s.*) Introduction to subject in question and answer. Intended for students, but useful reference work for others. 46 illustrations. (*No.* 2737 : 26.9).

HOT WATER SUPPLY

Small Domestic Hot Water Supply Boilers for Solid Fuel. *British Standard Specification* 758 : 1945. (*British Standards Institution*, 3*s.* 6*d.*) Revises three previous issues. Of considerable importance is increase in minimum fuel capacity permitted. Past experience showed smallest boilers would not always stay alight overnight. New size makes 10 hour burning certain. Better control of air entering ash pit damper should make for better control of burning rate. (*No.* 2477 : 4.4).

Wasteful Electric Hot Water Installations in MOW Temporary Houses. (*Electrical Times, March* 14, 1946.) Statement by chairman of local distribution committee, London and home counties JEA, on March 7. Criticism of electric hot water installation in temporary houses. (*No.* 2558 : 16.5).

Centralised Domestic Hot Water Service. *British Standard Code of Practice. Second Proof. Draft for Comment*, 1946. (*British Standards Institution*, 5*s.*) Part of General Series Code. Various sections deal with centralised domestic hot water supply, boilers, calorifiers, storage vessels, pipework, etc., electrically driven circulating pumps, thermal insulation. (*No.* 2.626 : 11.7).

Questions and Answers on Hot Water Supply. *L. C. C. Rayner.* (*George Newnes, Ltd.*, 1946, 5*s*.) Introduction to subject in question and answer. Design and installation data for domestic and larger buildings. Much practical information in small compass. 31 illustrations. (*No.* 2738 : 26.9).

Centralized Domestic Hot Water Service. *BS Code of Practice. Draft for Comment. General Series Codes* 3.431 : 1946. (*British Standards Institution*, 1946, 5*s*.) Planning, design, and installation of centralized domestic hot water systems. Tables of hot water supply requirements for houses, flats, schools, hospitals, and other types of building. Stand-by requirements for non-domestic buildings. Routine and performance tests specified in detail. Sub-codes cover boilers, calorifiers, storage cylinders and tanks, pipe-work and fittings, appliances, electric circulating pumps, thermal insulation. (*No.* 2739 : 26.9).

INTERMITTENT HEATING : TESTS

Some Experiments Carried Out with Intermittent Heating. *Carried out by the Building Research Station.* (*J. Inst. of Heating and Ventilating Engineers, Vol.* 14, *No.* 135, *May-June*, 1946, *p.* 103.) Description of experiments to determine effect on heating of panel linings to rooms. Full description and results, with graphs and tables. (*No.* 2808 : 7.11).

The Transient Warming of Rooms. *M. V. Griffith, B.Sc., A.Inst.P.* (*Technical Report Y|TS. The British Electrical and Allied Industries Research Association*, 8*s*.) Report on experiments to determine effect of wall lining materials on transient warming by high temperature electrical methods. (*No.* 2849 : 12.12).

MISCELLANEOUS SERVICES

British Standard Code of Practice. Chapter VII. Services. Draft Code for Comment. (*British Standards Institution*, 2*s*.) In nine parts covering the various aspects of functional requirements of services in buildings. (*No.* 2387 : 14.2).

PANEL HEATING

Radiant Heating Lay-out Simplified. *R. G. Vanderweil.* (*Pencil Points, October*, 1945.) Discussion of heat flow in panel heated rooms. Various charts to simplify engineering design. Example of panel heating installation in house. (*No.* 2385 : 14.2).

Solar House. Warm Air Panel Heating. *George F. Keck.* (*Architects' Journal, December 6th*, 1945.) Article describing USA flexible unit construction house includes description and photographs of warm air floor panel heating. (*No.* 2386 : 14.2).

A New Domestic Heating System. (*Smokeless Air* [*Smoke Abatement Journal*], *No.* 59, 1945.) Description of system of heating devised by Rheostatic Co., Slough. Single boiler for all purposes. Space heating by low temperature ceiling panel radiation obtained by warm air circulation in ceiling/floor space. Thermostatic control of boiler combustion and water flow. Comfort and economy claimed. (*No.* 2428 : 7.3).

"Base-Ray" Heat Panel. *USA Trade Literature.* (*Burnham Boiler Corp., Irvington, New York.*) Two-page brochure illustrating cast iron baseboard (skirting) heat units. Interesting type of heating being developed by USA firms. (*No.* 2464 : 28.3).

Wrought Iron for Radiant Heating. *USA Trade Literature.* . (*From A. M. Byers Co., Pittsburgh.*) Useful brochure setting forth advantages and methods of panel heating. Many illustrations of installation work in progress. (*No.* 2465 : 28.3).

Heating by Radiant Baseboards : Developments and Studies in USA. *Cyril Tasker.* (*Heating and Ventilating Engineer and Journal of Air Conditioning, December*, 1945.) Detailed description of baseboard heating, *i.e.*, radiant skirting panels. Review of report of tests by University of Illinois in test house. Illustrations of installation. (*No.* 2491 : 11.4).

Wholesaler Installs Radiant Heat in New Garage. (*Plumbing and Heating Journal, USA. April*, 1946, *p.* 71.) Under-floor heating installation in 3,300 sq. ft. garage. Pipe laid at 16-in. centres of ½-in. insulating board on 2-in. gravel fill. Sand cover 2 in. thick over pipes, followed by 4-in. and 6-in. floor slab. Insulation of building to cut down heat losses. (*No.* 2603 : 27.6).

Radiant Heating Systems Meet with Approval. (*Plumbing and Heating Journal, August*, 1946, *p.* 42.) Account of recent developments of radiant heating for domestic buildings in USA. Copper tube favoured for heating coils. Methods of installation. Popular rather than technical treatment. (*No.* 2850 : 12.12).

SERVICES : MISCELLANEOUS BUILDINGS

Factories Services. (*Architectural Record, November*, 1945.) Long article by members of Albert Kahn Ass. Architects. Notes on lighting, heating and other services. (*No.* 2459 : 28.3).

Research Laboratories Services. (*Architectural Record, November*, 1945.) Several USA Research Laboratories. Well illustrated with detail on services. Valuable reference. (*No.* 2460 : 28.3).

Laboratory Service Piping. (*Architectural Record, November*, 1945.) Time-saver standards information sheet on services. Detailed plans for Firestone Tyre and Rubber Co. Laboratories, Akron, Ohio. (*No.* 2461 : 28.3).

Industrial Canteens. *Harold H. Grattidge.* (*Air Treatment Engineer, September, October, November and December*, 1945.) Exhaustive and useful article. Determination of size and siting. Type of service. Areas required. Storage areas. Details of sizes of equipment and storage. Reference of heating and ventilation. (*No.* 2493 : 11.4).

The Care of Churches. Lighting and Heating. (*Press and Publications Board of the Church Assembly, London*, 4*d*.) Interim pamphlet intended as guidance to those responsible for churches. Strongly advises against work in churches until conditions permit better materials and workmanship. (*No.* 2526 : 25.4).

Cremation in Great Britain. (*Pharoe Press.* 12*s.* 6*d. Obtainable only from publishers*, 47, *Nottingham Place, London, W.*1.) Prepared by Cremation Society of Great Britain. History of cremation. Cremation law. Notes on all existing crematoria in Great Britain. Planning and furnaces. (*No.* 2604 : 27.6).

Heating and Ventilating a Small Cinema. (*Arch. Record, June*, 1946.) Part of series of technical notes on small cinemas of about 400 seats capacity. (*No.* 2810 : 7.11).

SMOKE ABATEMENT

Smokeless Zones. (*Smokeless Air* [*Smoke Abatement Journal*], *No.* 59, 1945). Several references and articles, including report of action by City of London and Manchester to obtain powers to enforce smokeless zones. (*No.* 2426 : 7.3).

Smoke Prevention in the South. (*Smokeless Air* [*Smoke Abatement Journal*], *No.* 59, 1945.) Report of conference at Southampton with brief extracts from papers. (*No.* 2427 : 7.3).

SOLAR HEATING

Solar Heating. Putting Sunbeams on the Roof to Work. (*Plumbing and Heating Journal* [*USA*], *May*, 1946.) Solar water heating. 85 per cent. homes in Florida equipped. Reference to research work on solar cooking and storage of solar heat from summer to winter. Insufficient data in article to be very valuable. (*No.* 2683 : 22.8).

SOLID FUELS AND APPLIANCES

Good Heating for Every Home. *Exhibition by Solid Smokeless Fuels Association, at Horticultural Hall, London, March* 13 *to* 30, 1946. Exhibition of solid smokeless fuel appliances for domestic use. Side exhibits of accessories, ventilation, fuels, etc. (*No.* 2524 : 25.4).

Solid Fuels and Appliances for Space Heating. *Paper to IHVE* (*Journal of the Institution of Heating and Ventilating Engineers, Nov.-Dec.*, 1945.) First part of paper deals with coal production, types and qualities. Latter part illustrates some up-to-date heating appliances. Chief value is in showing importance of relationship of fuel to heater. (*No.* 2527 : 25.4).

Open Fires for Domestic Purposes. *BS* 1251 : 1945. (*British Standards Institution*, 2*s*.) Covers dimensions and to some extent quality of open fires, including firebricks, lintels and throats, stool grates, back boilers and tile surrounds. Does not cover sunk or other special fires with self contained flues. (*No.* 2556 : 16.5).

Riva Four-Fold Fireplace. *Trade Literature.* (*Mersey Supplies*, 6/10, *Slater Street, Liverpool*, 1.) Open type solid fuel fire with counterweighted electric fire and counterweighted firescreen which slide out of sight behind casing over fire. Some convection heating claimed from side wings. (*No.* 2560 : 16.5).

Solid Fuel Cookers and Combination Grates. *British Standard* 1252 : 1945. (*British Standards Institution*, 2*s*.) Deals with continuous and intermittent side-oven combination grates, grates with ovens over fires back-to-back grates, self setting and free standing appliances with or without boilers. In two parts. Part 1 deals mainly with appliances which could be produced at short notice from existing patterns; confined chiefly to dimensional standardisation. Part 2, on future models, of extreme importance as lays down standards of performance. If followed, many existing models of low efficiency should disappear. (*No.* 2629 : 11.7).

THERMAL INSULATION: CONSTRUCTION

Methods of Construction and of Heat Insulation in the Ukraine. *Extracts from* Dwellings of the People in the Ukraine. *P. G. Yurcheuko.* (*Translated by G. N. Gibson. Introductory note by H. Bagenal. RIBA Journal, August*, 1945.) Interesting description of Russian methods of construction, with particular reference to their way of dealing with conditions of extreme cold. Valuable as indication of methods of approach different from our own, but which may be studied with advantage in relation to conditions here. Illustrated by sketches. (*No.* 2301 : 3.11).

THERMAL INSULATION : GENERAL

Thermal Insulation of Dwellings. (*Ministry of Health Circular* 170-46, *September* 3, 1946.) Methods of improving thermal insulation to standards recommended in Simon Report. Standards. Types of construction and their cost. Fuel savings. (*No.* 2874 : 26.12).

Building Insulation. *Paul D. Close.* (*The Technical Press Ltd.*, 24*s.* 6*d. Second edition.*) American book dealing comprehensively with heat insulation and less fully with sound insulation in buildings. (*No.* 2875 : 26.12).

THERMAL INSULATION : MATERIALS

Kimsul Heat Insulation. *Trade Literature.* (*Kimberly-Clark Corporation, Neenah, Wisconsin, USA.*) Description and illustration of lightweight blanket type heat insulation material, 0.27. Btu./hr./sq. ft./ °F/in. Made from wood fibres impregnated with asphalt. Said to be fire, water and insect resistant. (*No.* 2535 : 2.5).

Balsam-Wool Insulation. *Trade Literature.* (*Wood Conversion Co., St. Paul, Minnesota, USA.*) Description of balsam-wool heat insulation material provided in sealed units which give easy application, keep insulation dry and, by special projection at edges, give added air space which increases insulation value. (*No.* 2536 : 2.5).

Heating and Ventilating Data for the Forces. XVI—Heat Insulation. Part II, Heat Insulating Materials. *L. J. Fischer.* (*Heating and Ventilating Engineer and Journal of Air Conditioning, January*, 1946.) Simple description of materials commonly used for heat insulation. Some consideration of efficiency with formulæ, graphs. (*No.* 2537 : 2.5).

"Ready-to-Fit" Thermal Insulating Materials : for Hot and Cold Water Supply and Central Heating Installations for Small Dwellings. *British Standard* 1304 : 1946. (*British Standards Institution*, 2*s*.) Range of insulating coverings for plumbing systems in small dwellings. Dimensions specified to fit British Standard cylinders, tanks, cisterns, and piping. Minimum thicknesses laid down on basis of proved thermal conductivity of various commonly used materials. Desirable standards of thermal insulation established. Emphasis on saving fuel. *No.* 2680 : 22.8).

THERMAL INSULATION : TESTS

Homes at Garston for Experiment on Heat Insulation. *Designed by C. C. Handisyde (Architect), I. G. Evans (Director of Research).* (*The Builder, March* 8, 1946.) Plans and illustrations of eight experimental houses at the building research station for experiments on heat insulation. Table of thermal transmittance of walls, floors, roofs and windows and table of materials used. (*No.* 2561 : 16.5).

VENTILATION : DOMESTIC

Ventilation (Houses and Flats only). *BS Code of Practice CP6* : 1945, *Chapter* 1 (*C*), (*British Standards Institution*, 6*d.*) Final Code. Occasional ventilation for warm weather or airing. Permanent ventilation for all conditions. Air changes specified. Details of how to obtain to follow in later general series codes, but requirements given. (*No.* 2424 : 7.3).

VENTILATION : INDUSTRIAL

Industrial Ventilation : A Review of Recent American Data. *Cyril Tasker.* (*Heating and Ventilating Engineer and Journal of Air Conditioning, November*, 1945.) Review of recent American Papers on subject. Useful as guide to general trends and to sources of more detailed information. (*No.* 2492 : 11.4).

VENTILATION : NATURAL

The Natural Ventilation of Unheated "Closed Rooms." *J. B. Carne, B.Sc.* (*Journal of Hygiene, Vol.* 44, *No.* 5, *May*, 1946.) Experimental investigation of air changes in rooms with either flues or wall gratings. (*No.* 2809 : 7.11).

LIGHTING

ARTIFICIAL LIGHTING : BUILDINGS

Recommended Practice of Home Lighting. *Report by Committee on Residence Lighting of the American Illuminating Engineering Society.* (*Illuminating Engineering, June*, 1945, *p.* 339.) Objectives of good lighting. Recommended values. Good practice described. Many illustrations. (*No.* 2372 : 7.2).

Provision of Artificial Light (Houses, Flats and Schools only.) *BS Code of Practice CP7* : 1945, *Chapter III(F).* (*British Standards Institution*, 6*d.*) General requirements. Factors affecting illumination. Type of fitting and size of source of light. Adequacy and location of supply. Standards of illumination. Appendix on choice of fixed fittings for bedrooms and living rooms. Appendix giving chart for determination of size of lamps and mantles for living rooms. (*No.* 2444*: 21.3).

Improved Technique in Small Office Lighting. *A. W. Larson and W. H. Kahler.* (*Illuminating Engineering, September*, 1945, *p.* 570.) Common shortcomings. Glare. Examples of improved lighting. (*No.* 2447 : 21.3).

Advances in Hospital Lighting Design. *I. Rosenfield.* (*Pencil Points, July*, 1945, *p.* 84.) Bed lighting, night lights, operating room lighting. (*No.* 2456 : 28.3).

Lighting and Decoration in an Underground Factory. *P. W. L. Broke-Smith and F. A. Hulcoop.* (*Light and Lighting, October*, 1945, *p.* 144.) Light fittings, intensities, and colour schemes. (*No.* 2501 : 1144).

Factory Lighting. *By a member of the Albert Kahn firm of Architects and Engineers.* (*Architectural Record, November*, 1945, *p.* 135.) Next steps. Cold-cathode lighting. Coloured machinery. Windowless factories. (*No.* 2612 : 4.7).

Practical Suggestions for Residence Lighting Showrooms. *R. W. Vershure.* (*Lighting and Lamps, November*, 1945, *p.* 32.) Sales display requirements. Summary of rules. (*No.* 2614 : 4.7).

The Provision of Electric Lighting in Dwellings. *British Standard Code of Practice. Draft for Comment. 2nd Proof*, 1946. (*British Standards Institution*, 2*s.*) Amount and quality of light required. Influence of light fittings ; position ; room decoration. Size of lamps. Method of suspending ceiling fittings. Portable fittings. Selecting fittings for efficiency. (*No.* 2670: 15.8).

Glare-free Auditorium Lighting. (*Arch. Record, April*, 1946, *p.* 77.) Auditorium roof section. (*No.* 2692 : 29.8).

The Light You Need, and How to Get It. *A. A. Brainerd.* (*Lighting and Lamps, March*, 1946, *p.* 60.) Lighting in offices and stores ; selection of light source type. (*No.* 2714 : 12.9).

Light for Selling. *R. J. Chopin.* (*Lighting and Lamps, April*, 1946, *p.* 28.) Show windows ; distribution of intensities inside shops. (*No.* 2715 : 12.9).

Lighting Code of the State of Maine—*Extracts and notes on school classrooms by P. E. Weatherbee.* (*Lighting and Lamps, December*, 1945.) Extracts from Code. Example cases. (*No.* 2773 : 17.10).

Lighting for Schools, Hospitals and Public Buildings. (*Lighting and Lamps, February*, 1946, *p.* 28.) Very brief "brains trust." (*No.* 2774 : 17.10).

Reflection Factors in Store Windows. *K. C. Welch.* (*Arch. Record, USA, July*, 1946, *p.* 107.) Short note, mainly dependent on diagrams. (*No.* 2857 : 19.12).

ARTIFICIAL LIGHTING : GENERAL

Lighting Men and Lighting Materials. *A. A. Brainerd.* (*Lighting and Lamps, June*, 1945, *p.* 24.) Practical points in choosing systems. Deficiency in data. (*No.* 2366 : 7.2).

Engineering Data and Their Interpretation. *A. H. Brainerd.* (*Lighting and Lamps, August*, 1945, *p.* 30.) Danger of narrow interpretation. Need for more standard test procedures. (*No.* 2371 : 7.2).

Australian Experience of Nation-wide Application of Industrial Lighting Standards. *L. D. Wright.* (*Illuminating Engineering, September*, 1945, *p.* 663). Effect of mandatory code requirements on quality and quantity of light, new trends in codification, colour. (*No.* 2500 : 11.4).

Stop Wasting the Light You Pay For. *F. I. Wilson.* (*Lighting and Lamps, February*, 1946, *p.* 40.) Case-record of improvements by cleaning walls and fittings, re-lamping, etc. (*No.* 2713 : 12.9.)

Yardsticks of Lighting Performance. *A. A. Brainerd.* (*Lighting and Lamps, December*, 1945, *p.* 38.) Five main questions about lighting design, (*No.* 2716 : 12.9).

FLOODLIGHTING

Floodlighting Design by Graphical Method. *R. L. Dearborn.* (*Illuminating Engineering, September*, 1935, *p.* 514.) Calculation of light intensity on working plane from floodlights. (*No.* 2449 : 21.3).

FLUORESCENT LIGHTING AND LAMPS

Fluorescent Lamps. *H. G. Jenkins.* (*GEC Journal, August*, 1945, *p.* 185.) Source of energy, circuits, spectra, colour and efficiency. (*No.* 2367 : 7.2).

Cold Cathode Lighting. *H. A. Miller.* (*Electrical Times, July* 26, 1945, *p.* 109.) Efficiency and colour of new cold-cathode tubes. (*No.* 2370 : 7.2).

Fluorescent Lamps Future Supply. *Statement by ELMA.* (*Electrical Times, July* 12, 1945, *p.* 51.) Sizes, colours and voltages of post-war fluorescent lamps. (*No.* 2446 : 21.3).

Cold Cathode at War. *J. M. Smith.* (*Illuminating Engineering, September*, 1945, *p.* 558.) Data from war-time installations. (*No.* 2448 : 21.3).

New Fluorescent Lamp. (*Electrical Review, January* 4, 1946.) Details of 40 watt, 4 ft. lamps. (*No.* 2502 : 11.4).

Reliable Instant-Starting Fluorescent Lamps. *R. N. Thayer and D. D. Hinman.* (*Illuminating Engineering, September*, 1945, *p.* 640.) Progress towards instant-starting mechanisms for hot-cathode lamps. (*No.* 2511 : 18.4).

Designing with Fluorescent Lighting. *M. Luckiesh.* (*Architectural Record, December*, 1945, *and January*, 1946.) Reduction of brightness contrasts. Elements of good factory lighting. Excellent illustration. (*No.* 2588 : 13.6).

Fluorescent Tubes for the Non-Technical. *T. C. Holdsworth.* (*Light and Lighting, January*, 1946.) Simple explanations of mercury vapour lamps, ultra-violet radiation, fluorescence, lamp-starting mechanism. (*No.* 2589 : 13.6).

LIGHT FITTINGS

Third Member of the Lamp Family. *F. H. Blumer.* (*Lighting and Lamps, June*, 1945, *p.* 26.) Some uses of germicidal lamps. Application in foundry. (*No.* 2368 : 7.2).

Infra-red—Its Characteristics and Utility. *P. H. Krupp.* (*Lighting and Lamps, July*, 1944, *p.* 16.) Nature of infra-red energy, equipment, application. (*No.* 2369 : 7.2).

Hospital Lighting (Data Book). *USA Trade Literature.* (*Edwin F. Guth Co.*, 2615, *Washington Avenue, St. Louis.*) Catalogue of all types of hospital light fittings. Fittings for germicidal lamps. (*No.* 2455 : 28.3).

New Developments in Aluminium for Lighting Fixtures. *C. A. Atherton.* (*Lighting and Lamps, March*, 1946, *p.* 58.) Characteristics ; design innovations. (*No.* 2693 : 29.8)

LIGHTING AND VENTILATION

Principles of Ultra-Violet Disinfection. *L. J. Buttople (Ohio, USA.)* (*Air Treatment Engineer, October*, 1945.) Mechanism of respiratory infection. Requirements in rate of air change. Impracticability of achieving standards by means of ventilation. The use of U.V. disinfection in rooms and limitations of its use in ventilation ducts. Limitation of use in rooms due to danger to eyesight. Valuable article. (*No.* 2510 : 18.4).

Lighting and Air Conditioning. *Howard M. Sharp.* (*Lighting and Lamps, January, February, April*, 1946.) Three articles dealing with relation of lighting to heating. Particular reference to air conditioning. Numerous tables of heat input, etc., due to lighting. (*No.* 2807 : 7.11).

LIGHTING AND VISION

Munsell Standard Colours Specified for Four Illuminants. *D. Nickersen.* (*Illuminating Engineering, March*, 1945, *p.* 159.) Specifications for incandescent light, north sky, blue sky, and substitute daylight. (*No.* 2363 : 7.2).

Spacing of the Munsell Colours. *D. Nickersen.* (*Illuminating Engineering, June*, 1945, *p.* 373.) Summary of report for Optical Society of America. (*No.* 2364 : 7.2).

Lighting to Dramatize Merchandizing. *W. P. Margulies.* (*Illuminating Engineering, March*, 1945, *p.* 172.) Stimulation of "impulse" buying. Value of contrast and change. (*No.* 2392 : 14.2).

Glare Ratings. *Ward Harrison.* (*Illuminating Engineering, September*, 1945, *p.* 525.) Appraising glare in artificial lighting designs. (*No.* 2445 : 21.3).

Applied Brightness Engineering. *C. N. Laupp.* (*Illuminating Engineering, September*, 1945, *p.* 675.) Brightness-contrast and glare. Examples of reduced brightness-contrast in practice. (*No.* 2499 : 11.4).

Vital Colour. (*Lewis Berger and Sons, Ltd., Morning Lane, E.9*, 1946, 25*s.*) Nature of colour vision. Classifieation of colour. Influence of illuminant and surface. Selection of colours for use. Example applications. (*No.* 2611 : 4.7).

Production Slow-Down Due to Poor Lighting. *H. Miedendorp.* (*Rayon Textile Monthly, April*, 1945, *p.* 83.) Common lighting faults. Types of equipment. Maintenance charts. General principles. (*No.* 2613 : 4.7).

Eyes and Ears in School (1) *Audio-Visual Classroom Planning. P. Will.* (*Arch. Record, February*, 1946, *p.* 67.) Classroom design for cine-projection. (*No.* 2708 : 5.9).

Eyes and Ears in School (2) *Light on Growing Children. D. B. Harmon.* (*Arch. Record, February*, 1946, *p.* 79.) Body posture and lighting. Improved daylighting in school. (*No.* 2709 : 5.9).

Industrial Lighting. (*Department of Labour and National Service, Australia*, 1945.) Principles of lighting and vision ; important practical points in design ; recommended values ; colour in industry ; guidance on choice of equipment and layout. (*No.* 2733 : 19.9).

The Relation Between Illumination and Vision. *C. L. Crouch.* (*Illuminating Engineering, November*, 1945, *p.* 747.) Paper reviewing

research on illumination and vision. Brief, lucid and comprehensive. Illustrated by graphs. (*No.* 2856 : 19.12).

NATURAL LIGHTING : MEASUREMENT

The Tabular Method of Daylight Measurement. *John Swarbrick.* (*Specially written for The Architects' Journal and printed in full with diagram.*) Method of using standard tables on window performance where daylight obstructions are not complicated as in rural and suburban areas, without recourse to geometrical projections. (*No.* 2390 : 14.2).

The Relative Efficiency of Single and Double Windows. *P. J. Waldram.* (*RIBA Journal, November*, 1945, *p.* 14.) Application of daylight tables to multiple windows. (*No.* 2496 : 11.4).

The Approximate Measurement of Daylight. *P. J. Waldram.* (*RIBA Journal, May*, 1946, *p.* 290.) Daylight factor. Official regulations, tables and graphs. Example analyses. (*No.* 2694 : 29.8).

Protractors for the Computation of Daylight Factors. *A. F. Dufton.* (*Building Research Technical Paper No.* 28, *HMSO*, 1946. 4*d. net.*) Directions for using Building Research Station Daylight Factor Protractors. Clear and useful statement. (*No.* 2858 : 19.12.)

Daylight Factors for EJMA Standard Casement Windows. (*The English Joinery Manufacturers' Association*, 1946.) Data on daylighting for wood windows. Reliable and useful information. Illustrated with daylight contours. (*No.* 2859 : 19.12).

NATURAL LIGHTING : BUILDINGS

Advances in the Art of School-Room Daylighting. *F. Wynkoop.* (*Architectural Record, July*, 1945, *p.* 91.) Classroom plans related to daylighting. California development. (*No.* 2391 : 14.2).

Control of Natural Light in Classrooms. *R. L. Biesele, W. E. Folsom and V. J. Graham.* (*Illuminating Engineering, September*, 1945, *p.* 590.) Sunlight and daylight control by reflectors and transluscent screens. (*No.* 2497: 11.4).

Sunlight—Houses, Flats and Schools only. *British Standard Code of Practice. Chapter 1(B).* (*British Standards Institution*, 6*d.*, *November*, 1945.) Recommendations for minimum duration of sun exposure of rooms. Clear explanation with diagrams of planning restriction resulting from these recommendations. Reference to shadowing of ground by buildings. Objects of sunlighting, sunpaths, standards, acceptable angles of orientation and obstruction. (*No.* 2498 : 11.4).

A Radical Departure in Daylighting. *A design by M. Lyndon.* (*Arch. Record, March*, 1946, *p.* 120.) Basis of design is shown in cross-section. (*No.* 2712 : 12.9.)

Applied Brightness Control in Schools. *K. C. Welch.* (*Arch. Record, March*, 1946.) General principles. Designs using louvres. (*No.* 2731 : 19.9).

NATURAL LIGHTING : GENERAL

Natural Lighting. (*Pamphlet by the Illuminating Engineering Society.*) Characteristics of good natural lighting. Planning points. (*No.* 2365 : 7.2).

PUBLIC LIGHTING

Public Lighting in the City and Highway. (*Pamphlet by the Illuminating Engineering Society*). Administrative problems. Principle of street lighting design. Road surface. (*No.* 2373 : 7.2).

Lighting for Recreation. *E. P. Mowson.* (*Light and Lighting, October*, 1945, *p.* 142.) Lamp sizes, spacing and fitting types for outdoor sport. (*No.* 2509 : 18.4).

SOLAR ANGLES : FORMULÆ

Short Cuts to Solar Angles. *H. P. Maas.* (*Arch. Record, March*, 1946, *p.* 125.) Formulæ and tables for determining position of sun. (*No.* 2732 : 19.9).

MATERIALS

ALUMINIUM

Aluminium. *Lecture by Dr. E. G. West at a meeting of the Design and Industries Association.* (*The Architects' Journal, November*, 1945, *pp.* 343-346.) Spectacular increase in world production during war. Groups of aluminium alloys, their physical and mechanical properties. Methods of manufacture. Surface finishings. Application in building and transport. (*No.* 2322 : 10.1).

How and When to Use Aluminium Alloys. *R. L. Moore.* (*Engineering News-Record, October* 18, 1945, *pp.* 518-524.) Physical and mechanical properties. Data for research at Aluminium Research Laboratories. Buckling. Recommended stiffener spacing. (*No.* 2348 : 31.1).

BLEACHED LAC

Bleached Lac. *BS* 1284 : 1946. (*British Standards Institution*, 2*s.*) Properties and requirements. Methods of test. (*No.* 2580 : 6.6).

CALCIUM SULPHATE : FLOORS

Calcium Sulphate Flooring (Tentative). *BS Code of Practice. Draft for comment. General Series Code* 2.147. (*British Standards Institution. 2nd proof.* 1946. 2*s.*) Materials (no B.S. available for calcium sulphate for floors), general characteristics, uses, preparation of bases, methods of laying, maintenance. (*No.* 2826 : 21.11).

CAST IRON

Cast Iron in Building. *Richard Sheppard. With Introduction by J. G. Pearce.* (*George Allen and Unwin*, 7*s.* 6*d.*) Early building uses of cast iron. Production, varieties and properties of iron. Castings. Finishes and surface treatment. Use in building structure and for building details. Trends. (*No.* 2437 : 14.3).

CEMENTS

Methods of Mechanical Analysis of Portland Cements. *H. E. Rose.* (*Engineering, May* 17 *and* 24, 1946, *pp.* 457-9, 483-4.) Importance of fineness characteristics of cement and methods of their determination. (*No.* 2679 : 22.8).

High Alumina Cement in Hot Countries. (*Concrete and Constructional Engineering, p.* 210, *August*, 1946.) Construction of railway tunnel in Iraqui desert. Low strengths obtained with concrete made with high alumina cement. Decrease in strength of high alumina cement with increase of air temperature within range of 60 to 100 deg. F. (*No.* 2815 : 14.11).

Cement Bitumen Mixtures for Flooring (Tentative). *BS Code of Practice. Draft for comment. General Series Code* 2.144. (*British Standards Institution. 2nd Proof.* 1946. 1*s.*) Materials, flooring mixtures (no BS available covering this type of floor), general characteristics, uses, site exposure conditions, bases, methods of laying, polishing, and maintenance. Useful guide to type of flooring laid at present under various proprietary names, and not as yet widely used. (*No.* 2825 : 21.11).

CLAY PRODUCTS

Copings. *BS* 1233 : 1945, *Clayware. BS* 1234 : 1945, *Cast Concrete. BS* 1235 : 1945, *Natural Stone.* (*British Standards Institution*, 2*s.*) Dimensions, workmanship. Tolerances. (*No.* 2325 : 10.1).

Clay Tiles for Flooring. *BS* 1286 : 1945. (*British Standards Institution*, 2*s.*) Dimensions and workmanship. (*No.* 2578 : 6.6).

Glazed Earthenware Wall Tiles. *BS* 1281 : 1945. (*British Standards Institution*, 2*s.*) Dimensions, workmanship. (*No.* 2579 : 6.6).

Clay Engineering Bricks. *BS* 1301 : 1946. (*British Standards Institution*, 2*s.*) Classification and tests. (*No.* 2622 : 11.7).

COMPOSITION BLOCKS : FLOORS

Composition Block Flooring. *BS Code of Practice. Draft for comment.* (*British Standards Institution. 2nd proof.* 1946. 1*s.*) Proprietary composition flooring units of about 6 in. by 2 in. by $\frac{5}{8}$ in. No BS available covering composition. Code covers laying, resistance to wear. Uses : schools, living rooms, halls and bedrooms : doubtful in kitchens and bathrooms. Special units, general characteristics, maintenance, preparation of base and method of laying. (*No.* 2827 : 21.11).

CONCRETE PRODUCTS : TILES

Concrete Interlocking Roofing Tiles. *BS* 550 : 1945. (*British Standards Institution*, 2*s.*) Materials, dimensions, transverse and permeability tests and methods of testing. Suitable type of apparatus for transverse test. (*No.* 2323 : 10.1).

CONCRETE : PROGRESS REVIEW

A Second Review of Recent Progress. (*Reinforced Concrete Association, London, December*, 1945, 1*s.* 6*d.*) Short summaries of new Codes, Standards, and recent literature on reinforced concrete. (*No.* 2489 : 11.4).

CONCRETE : SPECIAL TREATMENT

Electro-Concrete. *Kurt Billig.* (*Journal of the Institution of Civil Engineers, October*, 1945, *pp.* 368-378.) Treatment of green concrete by electric current in cold weather. Method adopted mainly in USSR. (*No.* 2300 : 3.1).

Prestressed Concrete. (*The Builder, January* 11, 1946, *p.* 59.) Short description of principles, advantages and methods of prestressing. (*No.* 2420 : 7.3).

COPPER

Copper Through the Ages. (*Copper Development Association, Publication No.* 2, 1945.) General account in non-technical terms of uses of copper and copper alloys, from pre-historic times. Architectural uses. Much out of the way information and bibliography. Well illustrated. (*No.* 2796 : 31.10).

The Resistance of Copper to Soil Corrosion. *H. G. Taylor.* (*Copper Development Association. Publication No.* 35, 1946.) Technical paper on resistance of copper to soil corrosion. Particular reference to gas and water services. Theory of soil corrosion and methods of testing. Comparative tests. Experience with buried copper. Illustrated. Bibliography. (*No.* 2797 : 31.10).

DOOR BOLTS

Iron, Steel and Non-Ferrous Door Bolts. *BS* 1228 : 1945. (*British Standards Institution*, 2*s.*) Dimensions of 16 types. Primarily for houses. (*No.* 2326 : 10.1).

FOAMGLASS

Foamglas Insulation. *USA Trade Literature.* (*From Pittsburg Corning Corp., Pittsburg* 22.) Sizes and properties of Foamglas blocks. Details of blocks used mainly as centre core to walls of various types. Some use in floors and roofs. (*No.* 2419 : 7.3).

GENERAL : ARCHITECTURAL USE

The Architectural Use of Building Materials. *Post-War Building Studies No.* 18. *By a Committee convened by the RIBA.* (*HMSO*, 1946, 2*s.* 6*d.*) Stone, brickwork, roofing, materials, *in situ* and precast concrete, metals, glass, external and internal finishes. Temporary buildings. (*No.* 2707 : 5.9).

LINO AND CORK : FLOORS

Linoleum and Cork Carpet. *BS Code of Practice. Draft for comment. General Series Code* 2.151. (*British Standards Institution. 2nd Proof.* 1946. 1*s.*) Quality and suitability of materials, general characteristics, methods of laying, maintenance. Definitions confusing. Generalization of little significance. Lack of information on details of importance, *e.g.*, underlays and adhesives. *No.* 2824 : 21.11).

PLASTER

Plastering. *Paper read by H. Andrews of the BRS at RIBA, January* 2. (*The Architect and Building News, January*, 1946, *pp.* 10-13.) Functions of plaster. Inter-relation of plastering and other building operations. Materials. Present trends. (*No.* 2418 : 7.3).

PLASTICS

Definition of Technical Moulding (Plastics). *BS* 1253 : 1945. (*British Standards Institution*, 1*s.*) Use of certification mark. Design. Material. Moulding. (*No.* 2581 : 6.6).

Plastic Bonding of Light Metals. *E. Preiswerk and A. von Zeerleder.* (*Plastics, July*, 1946, *p.* 357.) Physical properties and making of joints in light alloys with Araldit CIBA. Typical applications. (*No.* 2814 : 14.11).

STONE : NATURAL

Natural Stone for Buildings. *BS* 1232 : 1945. (*British Standards Institution*, 2*s.*) Dimensions and workmanship. Dimensioned building stone to be laid with ¼in. joints and to bond with brick-work. (*No.* 2324 : 10.1).

TIMBER : MISCELLANEOUS

Classification of Wood Preservatives. *BS* 1282, 1945. (*British Standards Institution*, 2*s.*) Tar oil: organic solvent and water solution types. Application. Tests for toxity of wood preservatives to fungi. (*No.* 2490 : 11.4).

Timber Pests. Their Origin, Prevention and Cure. (*Timber Development Association booklet.*) Wood destroying fungi. Prevention of decay of timber. Stains of timber. Marine borers. Control measures. (*No.* 2653 : 8.8).

The Enemies of Timber. (*Jenson and Nicholson Ltd.*, 36, *St. James's Street, London, S.W.*1, 1*s.*) Booklet on wood-destroying fungi (dry rot) and insects. Preservation. Well illustrated. (*No.* 2654 : 8.8).

Timber Seasoning. (*Timber Development Association.*) Guide to timber drying. (*No.* 2655 : 8.8).

TDA Quarterly Review. (*Timber Development Association, April*, 1946.) Activities of various committees. Timber : applications, statistics and general information. Statistical data on production and consumption of soft- and hardwood. Useful library catalogue. (*No.* 2656 : 8.8).

Timber. (*Timber Development Information Leaflets.*) Continuation of the Association's Information Service on scientific and economic uses of timber. (*No.* 2657 : 8.8).

Grading and Sizing of Softwood Tongued and Grooved Flooring. *BS* 1297 : 1946. (*British Standards Institution*, 2*s.*) Tolerances regarding dimensions, checks, shakes and knots. (*No.* 2658 : 8.8).

World Timbers. *Vol. II.* (*Timber Development Association.*) Further 10 leaflets. See No. 1807 : 22.2.45. (*No.* 2816 : 14.11).

TIMBER : RESEARCH

Timber Products Research Secrets. (*Engineering News-Record, November* 15, 1945, *pp.* 678-680.) Technical developments resulting from timber-products research during war. Peacetime applications. (*No.* 2337 : 24.1).

MISCELLANEOUS

BUILDING GEOMETRY

Building Geometry. *W. J. Stone.* (*Longmans*, 1946, 7*s.* 6*d.*) Textbook on Building Geometry (plane and solid) with problems and exercises, for building students. Up to S2 National Certificate standard. Additional matter as introduction to S3 standard. (*No.* 2846 : 12.12).

COLOUR IN BUILDING

Colour in Building. *W. Allen.* (*RIBA Journal, May*, 1946, *p.* 282.) Light-coloured and varicoloured environments. Utilitarian use of colour. Examination of principles. Social trends. (*No.* 2717 : 12.9).

CONTRACTORS' PLANT

Guide to Contractors' Plant. *Noel D. Green.* (*George Newnes Ltd.*, 1946, 15*s.*) Working principles, maintenance, economic use, with emphasis on heavy civil engineering plant. Practical hand-book rather than text-book. Surprising omissions. (*No.* 2836 : 5.12).

DESIGN : MISCELLANEOUS BUILDINGS

Design of the Post-War Bathing Establishment. *William C. B. Smith.* (*Municipal Engineering, May* 16, 1946, *Vol. CXVII*, p. 290.) Review of requirements for public bathing. The baths as recreation centre. Lighting and acoustics problems in indoor pools. Rectangular pool shape condemned. Wave machines. Layout of dressing rooms. etc. Suggested requirements for a 30,000 population. (*No.* 2647 : 1.8).

Modern Public Libraries : Their Planning and Design. *E. H. Ashburner.* (*Grafton and Co.*, 1946, 25*s.*) Design and equipment of municipal libraries : Furnishings, heating, ventilation, and lighting. Internal finishings. Notes on British libraries other than municipal lending libraries. Notes on some foreign libraries. Bibliography. (*No.* 2695 : 29.8).

The Shallow Water Method of Swimming Instruction. *Winifred Gibson.* (*Sir Isaac Pitman and Sons, Ltd.*, 2*s.*) Describes convincingly teaching of swimming by shallow water method. Revolutionizes planning of swimming baths. Important to architects. (*No.* 2721 : 12.9).

Farm Buildings of the Future. *John Mackie.* (*Farming, Vol.* 1, *p.* 89, *July-August*, 1946.) Rapid revision of farming technique requires new types of buildings and layout. Need for hard roads, outside lighting. Housing stock, pigs and poultry. Crop storage. (*No.* 2741 : 26.9).

Farm Buildings. *N. E. B. Elgar.* (*Modern Farming, No.* 3, *June*, 1946, *p.* 17.) Change of emphasis in farming from labour surplus to need to attract new labour. Bad conditions to-day due to inadequate and out-of-date buildings. Planning for labour economy : loading ramps, good lighting, economy of labour movement, bringing work under cover, hard access roads. Open-air milking on the Hosier system. Finance. (*No.* 2742 : 26.9).

Farm Buildings in Scotland. *Post-War Building Studies, No.* 22, 1946. (*HM Stationery Office*, 1*s.* 6*d.*) A report which adds to information given in earlier Ministry of Agriculture report. Ventilation and multi-span buildings. Many plans of 250-acre farms. Piggery plans not previously published. Dimensions of implements. (*No.* 2754 : 3.10).

Design for the Post-War Bathing Establishment. *William C. B. Smith, A.R.I.B.A.* (*Paper read at the Annual Conferences of the National Association of Baths Superintendents, May* 15, 1946.) Suggests that future baths should form part of group of recreational buildings. Siting considerations. Natural lighting, advantages of side lighting. Needs for acoustical treatment. Some planning points. Value of wave machines. (*No.* 2805 : 7.11).

ELECTRICAL SERVICES

Provision of Electricity Service Cables for Small Houses. *British Standard Code of Practice. Draft for Comment. Second Proof*, 1946.) (*British Standards Institution*, 1*s.*) Short code giving general information, size and type of cable, methods of running cable into house, use of looped services to pairs and terrace houses and recommendations for dealing with overhead supplies. (*No.* 2661 : 8.8).

Consumer's Electricity Supply Controls for Small Dwellings. *British Standard Code of Practice. Draft for Comment. Second Proof*, 1946.) (*British Standards Institution*, 1*s.*) General information. Responsibilities of builder, supply company and electrical contractor. Principal components. Design requirements for supply control box with dimensioned illustrations. (*No.* 2662 : 8.8).

Private Electric Generating Plant. *British Standard Code of Practice. Draft for Comment. Second Proof*, 1946. (*British Standards Institution*, 2*s.*) Private electric generating plant of both alternating current and direct current types not exceeding 250 kW, voltage not exceeding 650 volts. Housing of plant, including foundations, choice of system, possibilities of extension or supersession by mains supply, automatic operation and economy of operation by careful planning of load. (*No.* 2685 : 22.8).

Dictionary of Electrical Engineering. *G. W. Stubbings.* (*E. and F. Spon, Ltd.*, 10*s.* 6*d.*)

Electrical Wiring Theory and Practice. *W. S. Ibbetson.* (*E. and F. Spon, Ltd.*, 11*s.*) Books not intended for architects, but *Wiring Theory and Practice* has detailed explanations of many items architect must have for discussion with his consultant. Useful office reference book, although some of the material does not quite agree with latest recommendations for good practice. (*No.* 2696 : 29.8).

Electrical Engineering. *Book List* 207. (*Sponsored by the British Council for distribution by the National Book League.*) Comprehensive list of books prepared by the late J. Corthesy, Librarian, 1913-46, of Inst. Elec. Eng. (*No.* 2697 : 29.8).

FLOOD PREVENTION

Flood Prevention Schemes in Holland, and the Zuider Zee Reclamation Scheme. *Walter H. Haile.* (*Journal of the Institution of Municipal and County Engineers, July* 2, 1946. *Vol. LXXII, p.* 483.) Historical account of Zuider Zee. Land reclamation in Holland. (*No.* 2720 : 12.9).

GENERAL REFERENCE BOOKS

Spon's Practical Pocket Book. *Messrs. E. and F. N. Spon, Ltd.* (*8th Edition.* 12*s.* 6*d.*) 570 pages of miscellaneous information for builders and architects. (*No.* 2660 : 8.8).

The Ironmonger Glossary of Building Trade Abbreviations. *John Croydon.* (*The Ironmonger and Builders' Merchant and Metal Trades Advertiser*, 1946.) Glossary of abbreviations in building and ancillary trades together with B.S. Symbols and Colour Codes. (*No.* 2839 : 5.12).

HEALTH LEGISLATION

The National Health Service Bill. *Dr. M. Markowe.* (*Journal of the Royal Sanitary Institute, July*, 1946. *Vol. LXVI, p.* 198.) Present Government legislation shown as evolutionary rather than revolutionary. History of public health legislation. N.H. service next logical step. (*No.* 2719 : 12.9).

HOUSING

Homes for the People. *By a Committee of the Association of Building Technicians.* (*Paul Elek*, 1946, 7*s.* 6*d.*) Short study of housing problem for laymen. (*No.* 2776 : 17.10).

Housing Digest : An Analysis of Housing Reports, 1941-45. *Prepared by the Association for Planning and Regional Reconstruction for the Electrical Association for Women.* (*Art and Educational Publishers*, 1946, 15*s.*) Objective presentation of official and unofficial statements and information on housing contained in reports published between 1941 and January, 1945. Standards. Training for home management. Housing types. Siting. Services. Internal layout and equipment. Illustrated. References. (*No.* 2804 : 7.11).

First Annual Report, 1945-1946. *Northern Ireland Housing Trust.* (*HMSO*, 1946, 8*d.*) Housing position at March 31, 1946. Review covering period up to August 31, 1946. Estate lay-outs and typical plans of houses and flats. (*No.* 2837 : 5.12).

INFORMATION SERVICES

Sizes and Contents Arrangements for Manufacturers' Trade and Technical Literature (Building Industry). *British Standard* 1311 : 1946. (*British Standards Institution*, 1*s.*) Covers all trade catalogues, pamphlets and books. Limits these to three sizes. General guidance. (*No.* 2648 : 1.8).

Scientific Communication. *M. Goldsmith.* (*The Scientific Worker, Journal of the Association of Scientific Workers, Vol.* 1, *No.* 4, *August*, 1946, *pp.* 24-26.) Report on discussion on dissemination of scientific information during recent Royal Society Empire Scientific Conference. (*No.* 2798 : 31.10).

Report on Filing and Indexing : A Study of the Principles and Practice of Classification as Applied to Filing Systems. *O. W. Roskill.* (*O. W. Roskill and Co.* (*Reports*), *Ltd.*, 1946, £2 2*s.*) Critical examination of various filing, indexing and classification systems. Applications of classification to filing. Filing equipment, and list of suppliers. (*No.* 2799 : 31.10).

MUNICIPAL RATING

Report on Social Effects of Municipal Rating. *Land Values Research Group.* (*Footscray City Council, Australia*, 1946.) Study prepared to determine economic effects resulting from change in rating system from annual rental value basis to unimproved capital value basis. (*No.* 2872 : 26.12).

MURAL PAINTING

Mural Painting. *Hans Feibusch.* (*Adam and Charles Black*, 1946, 21*s.*) Historical survey of mural painting. Technique. Fifty-eight illustrations. (*No.* 2775 : 17.10).

PROFESSIONAL PRACTICE

Code of Professional Conduct. *Architects Registration Council of the United Kingdom.* (*Sanctioned by the Council on December* 14, 1945.) Intended only as guide. Ultimately Council and Discipline Committee decide if offence committed. (*No.* 2646 : 1.8).

To be a Surveyor. *Arthur J. Willis, F.S.I.* (*Methuen and Co., Ltd.*, 6*s.*) Book for members of Forces and general public considering choice of profession. (*No.* 2659 : 8.8).

The Quantity Surveying Profession : Evolution in War-time and Present Policy. *Alan W. Davson.* (*Paper read at the Quantity Surveyors' Conference, June* 20, 1946.) Paper prepared (*a*) to make chartered quantity surveyors more aware of their committee's work, and (*b*) to give members returning from Forces perspective of position. (*No.* 2730 : 19.9).

Building and Public Works Administration. Estimating and Costing. *Spence Geddes, E.S. Diplomate, RTC, Glasgow.* (*George Newnes*, 1946, 25*s.*) Emphasis on civil engineering and public works. Administration, organization, estimating and costing of work in progress. Mechanical plant (including type of operation for which each kind of plant is most suited). Output, fuel requirements, working cost per hour. (*No.* 2766 : 10.10).

London Building Laws. *Horace R. Chanter, F.R.I.B.A., F.S.I., M.I.Struct.E.* (*B. T. Batsford, Ltd.*, 21*s. net.*) Deals comprehensively with London Building Acts, LCC Bye-Laws, Town and Country Planning Acts, Common Law Rights, etc. Authoritative guide. (*No.* 2835 : 5.12).

Building Specifications. *J. Sumner Smith, F.S.I., F.I.ARB.* (*Hutchinson's Scientific and Technical Publications*, 1946, 16*s.*) Complete combined specification and bill of quantities. Hints on specification. (*No.* 2838 : 5.12).

Draughtsmanship. *R. Frazer Reekie.* (*Edward Arnold and Co.*, 1946, 10*s.* 6*d.*) Introduction for beginners, and general reference work. Equipment, line drawing, lettering, scale drawing, conventional symbols, reproduction, projection, rendering, freehand. (*No.* 2845 : 12.12).

Building Quantities. *James H. Anderson, F.R.I.B.A., F.S.I.* (*Edward Arnold and Co., 7s.* 6*d.*) General procedure in taking-off quantities, numerous examples. Examples of abstracting and billing. Useful as introduction and reference book. (*No.* 2873 : 26.12).

ROAD LAYOUT AND CONSTRUCTION

Memorandum on the Lay-out and Construction of Roads. *Ministry of War Transport, Memorandum No.* 575. (*HMSO*, 1943, *reprinted* 1946, 6*d.*) Important recommendations. Illustrated. (*No.* 2847 : 12.12).

RUN-OFF ESTIMATION

Estimation of Run-off from Impervious Surfaces. *W. H. Norris.* (*Journal of the Institution of Municipal and County Engineers, June* 4, 1946. *Vol. LXXII, p.* 425.) Comparisons of better-known methods of estimating run-off. Validity of basic assumptions. Simplified method. Example illustrating suggested method. (*No.* 2718 : 12.9).

SOIL FERTILITY

Chemicals, Humus and the Soil. *D. P. Hopkins.* (*Faber and Faber*, 1945, 12*s.* 6*d.*) Simple presentation of contemporary knowledge and opinions about fertilizers, manures and soil fertility for laymen. (*No.* 2755 : 3.10).

STANDARDS : PROGRESS

Further Uses of Standards in Building. *Second Progress Report of the Standards Committee of the Ministry of Works.* (*HM Stationery Office*, 9*d.*) Objects of standardisation. Account of progress made. Modular co-ordination. (*No.* 2684 : 22.8).

UNDERGROUND SERVICES

Location of Underground Services. *Report of a Joint Committee.* (*Institution of Civil Engineers*, 1946, 6*d.*) Recommendations for standard location of underground services in streets. Covers electricity, gas, water, telecommunications. Location of sewers and trunk mains. Disadvantages of kerbside tree-planting. Need for co-ordination of work, standard plans. (*No.* 2806 : 7.11).

Physical PLANNING

ESTATE LAYOUT

Three Estate Layouts. (*Architects' Journal, July* 12, 1945, *pp.* 25-28.) Interesting solutions to three entirely different problems. (*No.* 2382 : 14.2).

Practical Planning of Estates. *Stanley Gale.* (*Architectural Design and Construction, June-December*, 1944 *inclusive ; January-December*, 1945, *inclusive ; January*, 1946.) Series of articles giving quick and concise references on information contained in Government Acts, Orders, Regulations, Memoranda, and Circulars relating to various aspects of Housing and Planning, including building density, design of roads and sewers, finance and administration of housing estates, and housing design. (*No.* 2452 : 28.3).

HOUSING

Planning in the West Indies. (*Architects' Journal, May* 17, 1945, *pp.* 367-369.) Extracts from memorandum *Housing in the West Indies* (West Indies Development and Welfare Bulletin, No. 13). Suggestions for extensive housing programme. Provision of improved living conditions for lowest income groups. Legislation needed for compulsory acquisition of land for housing, for revision of building and health regulations, and for overcrowding and density standards. Diagrams showing neighbourhood principle applied to typical West Indian township and village. (*No.* 2345: 31.1).

Commonwealth Housing Commission. Final Report. (*Ministry of Post-War Reconstruction, Australia, November*, 1945, 338 *pages.*) Present housing position. Future requirements. Government-financed and private building. Physical planning. Administration. Building Industry. Standards. Community facilities. Legislation. (*No.* 2395 : 21.2).

Housing—Britain's Problem. *H. G. Clinch.* (*Municipal Engineering, March* 21, 1946, *p.* 169.) Errors of the past. Problem of Greater London. Finance of public housing. Interest rates and subsidies as national burden. Working-class housing as public service. Productive capacity of building industry. Present policy as accentuating past errors. Nationalization of all working class houses proposed as remedy. (*No.* 2591 : 20.6).

Administrative Aspects of the Housing Problem in Kampala, Uganda. *Dr. R. E. Barrett.* (*Journal of Royal Sanitary Institute, July*, 1946. *Vol. LXVI, p.* 223.) Problems of rapid growth of colonial township. Chronic housing shortage, economic problems of overcoming it. Overcrowding and special problems of sanitation. Boundary problem, and growth of slum areas outside area under legislative control. Special local conditions and difficulties. (*No.* 2711 : 12.9).

LANDSCAPING

The Restoration of the Landscape Affected by Wartime Airfields. *B. Hackett.* (*Journal of Institute of Landscape Architects, October*, 1945.) Rehabilitation of landscape covered with wartime airfields. Proposals for future use include retention as service or civil airfields, conversion into housing sites, setting-up of recreational centres, return to agricultural use. (*No.* 2357 : 7.2).

Tree Planting in Roads and Streets in Urban and Suburban Areas. *Ministry of Town and Country Planning Circular No.* 24 : 14*th May*, 1946. (*HMSO*, 1946, 1*d.*) Suggestions to local planning authorities and joint town and country planning committees (England and Wales) on improvement of urban areas by incorporating trees in design and layout of roads. Two appendices. (*No.* 2779 : 24.10).

LAW AND ADMINISTRATION

An Outline of Planning Law, 1943 to 1945. *D. Heap* (*Sweet and Maxwell*, 1945, 5*s.*) Explanatory synopsis of town planning legislation between 1943 and 1945. Statutes, Regulations and Orders relating to town and country planning, 1932 to 1945. (*No.* 2413 : 7.3).

Town Planning Interim Development and the Repair of War Damage. *H. G. May. Paper read to Chartered Surveyors' Institute, January* 17, 1946. (*Municipal Engineering January* 17, 1946.) Précis of Town and Country Planning Acts as affecting war damage claims. Legal difficulties stated concisely. Procedure to be followed where planning scheme in force. (*No.* 2480 : 11.4).

Planning Legislation, 1945. *Stephanie Wieser.* (*American Society of Planning Officials*, 1313 *E, 60th St. Chicago*, 37, 1945, $1.) Summary of planning legislation adopted by state legislatures in 1914 and 1945. (*No.* 2529 : 2.5).

Urban Redevelopment Legislation in the United States : A Comparative Analysis. *E. B Wilkens.* (*American Society of Planning Officials*, 1945, $2.) Tabulated information on state urban redevelopment legislation based on comparative analysis. Part of comprehensive study of urban redevelopment in preparation by American Society of Planning Officials. (*No.* 2530 : 2.5).

Status of Urban Redevelopment Legislation as on August 7, 1946. (*Urban Land Institute, Washington, D.C., August*, 1946.) Short summaries of USA urban redevelopment laws. Redevelopment Corporation Laws. Housing Redevelopment Laws. Redevelopment Land Agency Laws. (*No.* 2788 : 31.10).

MISCELLANEOUS

St. Anne's, Soho. *J. Groag.* (*Architects' Journal, June* 14, 1945, *pp.* 441-444.) Scheme for converting ruins of bombed St. Anne's Church Soho London into garden war memorial taken from *Bombed Churches as War Memorials* (Architectural Press, 1945, 3s. 6d.). Design for memorial chapel in eastern end of ruin. Bombed houses nearby replaced by modern offices, flats, restaurants. Existing emergency water supply converted into lily pond. (*No.* 2344 : 31.1).

Ulster Today. *The Government of Northern Ireland* (*HMSO*, 1945). Illustrated handbook on Northern Ireland supplying outline information on form of government ; air and shipping services ; Belfast and Stormont Estate ; rail and road communications ; industries and their location ; trade statistics ; agriculture and fisheries ; cultural activities. Useful directory of industrial and trade organisations. (*No.* 2415 : 7.3).

Kitchen Planning. *Victor Cirkin.* (*Architectural Record, December*, 1945.) Three type plans and photographs with some notes. Intended to illustrate flexibility with standard plans. (*No.* 2518 : 25.4).

Planning and Climate : Climates of Region, Locality and Site, and Factors in Layout. *A. Geddes.* (*Association for Planning and Regional Reconstruction, Report No.* 38, 1946, 5*s.*) Sources of information on regional climate in Britain. Health and climate. Climatic survey work of value to planners. Charts and diagrams. List of references. (*No.* 2541 : 9.5).

Density and Planning. *W. P. Haldane.* (*Surveyor and Municipal and County Engineer, June* 14, 1946, *pp.* 467-469.) Paper presented at Annual Meeting of Scottish branch of Institution of Municipal and County Engineers, Dundee. Density in recent history. Residential, recreational, industrial and commercial densities. Advantages and disadvantages of low-density housing. Suitable standards for housing densities. (*No.* 2750 : 3.10).

PLANNING AGENCIES

The Association for Planning, 1946. (*Association for Planning and Regional Reconstruction*, 1946.) Brochure summarizing work of APRR. Surveys and research. List of APRR publications. Information service and library. Training courses. (*No.* 2665 : 15.8).

Provisional Directory of Housing and Planning Agencies : United States and Latin America. *F. Violich.* (*Pan-American Union. Division*

of Labour and Social Information, Washington, D.C., May, 1946, not priced.) Introductory notes on importance and mechanics of information exchange. Classified directories of United States and Latin American housing and planning agencies. (*No.* 2789 : 31.10).

PLANNING : EXISTING TOWNS

Wolverhampton Plans. (*Architects' Journal, February* 15, 1945, *Planners' Scrapbook, p.* 136.) Exhibition and report of Wolverhampton Reconstruction Committee on *Wolverhampton of the Future.* Proposals put forward as basis for discussion and for future consideration by Council. Social and industrial survey to be undertaken later in co-operation with Birmingham University. Report deals with: Growth of town, Housing, Transport, the Civic Centre, Recreation. (*No.* 2295 : 3.1).

Tower Hill Replanned. *Report by Technical Sub-Committee* (*Tower Hill Improvement Trust,* 1945 ; *reviewed in Architect's Journal, May* 31, 1945, *p.* 405.) Practical and sensible suggestions for area north of Tower. Proposal for public garden of about seven acres between Tower and East-West Road. Traffic roundabout at approach to Tower Bridge. (*No.* 2298 : 3.1).

Voronezh Replanned. *L. Rudney and I. Tkachenko.* (*Architects' Journal, February* 15, 1945, *pp.* 133-136.) Survey of historical growth. Replanning proposals for almost completely destroyed town based on modern requirements for zoning of industrial and residential areas. Relocation and separation of industrial area from residential districts by protective park zone. Widening of main roads and squares retaining radial pattern of main thoroughfares. (*No.* 2332 : 24.1).

Wolverton Urban District : The Town and Country Plan. *G. A. Jellicoe.* (*Architects' Journal, October* 18, 1945, *pp.* 277-286.) Illustrated report on survey and plan for Wolverton Urban District to remedy main problems of area, namely, insufficient variety in population, and lack of harmony between urban features and rural setting. Planning proposals include limited immigration with large-scale tree planting linking new parks with new housing schemes. (*No.* 2334 : 24.1).

Gravesend Replanned. *Redevelopment Plan by G. E. Hill, M. Fuller and D. H. E. Hockley.* (*Architects' Journal, December* 13, 1945, *pp.* 429-432.) Draft development plan for town centre prior to final report to be published later. Proposals include division of new centre into four main parts—municipal centre, river front development, new recreation centre, industrial area. Provision of ringroad around town centre with adequate transport and parking facilities for inner core together with independent pedestrian network. Housing development suggested in vicinity of commercial centre to be grouped in self-contained units. (*No.* 2336 : 24.1).

A Plan for Leningrad. *Chief Architect : N. B. Baranov.* (*Architects' Journal, April* 5, 1945, *pp.* 259-260.) Plan for reconstruction drawn up by Leningrad architects. City to be nearly doubled in size, limiting density to 200 persons per acre. Creation of several large parks in both old and new parts of town. Destroyed large apartments to be replaced by three and four-room flats. Vast construction programme for small homes. (*No.* 2379 : 14.2).

Planning London, 1939-1946 : A Concise Reference List. *Compiled for APRR by Ellen G. Schoendorff.* (*Information Bulletin, Feb.-March,* 1946, *Association for Planning and Regional Reconstruction.*) Bibliography listing all important books and pamphlets on London planning since 1939 together with selected periodical and press references. (*No.* 2517 : 25.4).

The Coventry Tentative Planning and Redevelopment Proposals. *E. H. Ford.* (*Journal of Institution of Municipal and CountyEngineers, February,* 1946, *p.* 267.) Detailed account of present state of planning proposals. Illustrated by maps, diagrams prepared for public exhibition. Co-operation with other authorities. Traffic census, ring roads. Survey of special problems. (*No.* 2542 : 9.5).

Contrasts in Methods of Rebuilding Cities. *Land and Liberty, July,* 1946, *pp.* 164-165.) Review of LCC Stepney and Poplar Scheme. Proposals for Berlin. Economic aspects of land acquisition and taxation. (*No.* 2786 : 31.10).

Planning and Reconstruction in Coventry. *A. R. Pugh and A. L. Percy.* (*Journal of the Institution of Municipal and County Engineers, Vol. LXXIII, No.* 2, *September* 3, 1946, *pp.* 73-92.) Paper prepared for 73rd Annual Meeting and Conference of IMCE. Unbalanced state of industry through preponderance of motor industry. Population growth and statistics. Zoning and Densities. Open spaces. Road proposals. Effects of war on planning scheme. Basic survey of existing conditions making use of specially devised card index system for recording facts. Details for central area. (*No.* 2830 : 5.12).

Recent Town Planning in England. (*Architects' Journal Physical Planning Supplements : March* 7, 1946, *pp.* 195-198 ; *April* 11, 1946, *pp.* 287-291 ; *May* 9, 1946, *pp.* 359-362 ; *June* 13, 1946, *pp.* 449-452 ; *June* 27, 1946, *pp.* 483-486 ; *August* 22, 1946, *pp.* 133-137 ; *August* 29, 1946, *pp.* 153-156 ; *October* 3, 1946, *pp.* 241-244 ; *October* 31, 1946, *pp.* 313-318 ; *November* 7, 1946, *pp.* 331-333.) Exeter. Knutsford. Birkenhead. Worcester. City of Liverpool. Guildford. Sudbury and District. Chester. Kingston-upon-Hull. Windsor. (*No.* 2842 : 12.12).

Town Planning in Poland, Russia, Italy, and France. (*Architects' Journal Physical Planning Supplements : March* 28, 1946, *pp.* 251-254 ; *July* 11, 1946, *pp.* 25-28 ; *August* 8, 1946, *pp.* 97-100 ; *October* 17, 1946, *pp.* 277-280.) Warsaw. Planning in Russia. Milan. La Région Parisienne. (*No.* 2852 : 19.12).

Wohlen, Switzerland : A Five-Day Planning Course and the Solutions to the Redevelopment Problem. (*Architects' Journal Physical Planning Supplement : September* 5, 1946, *pp.* 171-175.) Outline of report on training course for local and regional planning held in Wohlen, Switzerland. Description of planning course. Recommendations of study groups for special subjects dealing with agriculture, housing, industry, road traffic, landscape and recreations as related to area of Wohlen. Four alternative general outline plans and special study of town centre. (*No.* 2864 : 26.12).

City of Hobart Plan. *F. C. Cook.* (*Hobart City Council, Hobart, Australia,* 1946.) Zoning. Communication. Public recreation. Housing and land subdivisions. (*No.* 2865 : 26.12)

PLANNING : GENERAL

Town Planning and Health. *J. H. Forshaw.* (*P. S. King and Staples,* 1945, 1*s.*6*d.*) Chadwick Public Lecture delivered at Royal Sanitary Institute. November 11, 1943. Study of town growth based on considerations of health and convenience comparatively new science. Survey of progress. Requirements of physical and mental health. Fully illustrated. *No.* 2356 : 7.2).

The New Planning. *Report of the London Conference, December,* 1944, *of Town and Country Planning Association. Edited by Barbara Bliss.* (*Faber and Faber,* 1945, 8*s.* 6*d.*) Problems and possibilities inherent in powers given to local authorities under Town and Country Planning Act, 1944, to acquire areas for redevelopment and relocation. (*No.* 2358 : 7.2).

Garden Cities of Tomorrow. *Ebenezer Howard. Edited by F. J. Osborn.* (*Faber and Faber,* 1946 6*s.*) New edition of Ebenezer Howard's book published in 1898 as *To-morrow : A Peaceful Path to Real Reform,* and re-issued with slight revisions in 1902 as *Garden Cities of To-morrow.* Preface by F. J. Osborn including Note on Terminology. Introductory essay on *The Garden City Idea and Modern Planning* by Lewis Mumford. Selected book list of garden city movement and planning literature. (*No.* 2432 : 14.3).

Homes, Towns and Countryside : A Practical Plan for Britain. *Edited by G. and E. G. McAllister.* (*Batsford,* 1945, 18*s.*) Symposium on planning by various experts, divided into four main sections : Planning of Town and Country, Planning for Industry, Planning for Family and Community, Administration of Planning. Fully illustrated. Bibliography. (*No.* 2440 : 21.3).

Planning 1945 : Parts 1 and 2. *Proceedings of a discussion conference on problems of large cities held in Chicago, May* 16-17, 1945. (*American Society of Planning Officials,* 1945.) Verbatim report of meeting of fifty planners from cities with populations of 100,000 and over, to discuss problems of large cities. (*No.* 2531 : 2.5).

Let's Plan. (*Town and Country Planning Association of Victoria,* 422, *Collins Street, Melbourne, C.*1, *Australia,* 1945.) Collection of public talks given by members of TCPA of Victoria or delivered at Association meetings. Booklet prepared to educate public in planning. Fully illustrated. (*No.* 2552 : 16.5).

Post-War Britain : A Blue-Print for Our National Life. *Edited by Sir James Marchant, with an introduction by Lord Woolton.* (*Eyre and Spottiswoode,* 1945, 12*s.* 6*d.*) Contributions from leading authorities on probable developments in main spheres of national activity. Aspects covered include health, food, building, agriculture, chemistry, materials, transport, and research. (*No.* 2564 : 30.5).

Town and Country Planning School, Bristol, September 19-25, 1945. (*Journal of Town Planning Institute, November-December,* 1945, *pp.* 14-30.) Abridged report of proceedings of Town and Country Planning Summer School, Bristol, 1945, opened by Minister of Town and Country Planning, and attended by 27 delegates from abroad. Legislation. New Towns and town extensions. Planning research. Population densities. Recreation. Commercial needs of towns. Distribution of industry. Transport. Education in planning. Profit or loss of reconstruction. (*No.* 2574 : 6.6).

Green-Belt Cities : The British Contribution. *F. J. Osborn.* (*Faber and Faber,* 1946, 12*s.* 6*d.*) Garden City Movement. Critical examination of Letchworth and Welwyn Garden City. Future development of green-belt cities. Historical origins of green-belt principle. Select book list. Illustrated. (*No.* 2585 : 13.6).

Quarterly Report, June, 1946. Incorporating Reports, December, 1945, and March, 1946. *Council for Preservation of Rural England.* (*CPRE, Quarterly Report, June,* 1946, *Vol. XIV, No.* 6.) Admirably clear and informative survey of recent events in planning covering Bills, Acts, Statutory Orders, Parliamentary Debates, Committees, official and unofficial publications. (*No.* 2778 : 24.10).

PLANNING : INDUSTRIAL

Conversion of War Sites. (*Architects' Journal, April* 26, 1945, *pp.* 313-316.) Summary of book *Adapting Wartime Sites to Post-War Uses,* prepared by Association for Planning and Regional Reconstruction for private circulation. Proposals for post-war treatment of sites chosen for industrial wartime purposes and for methods of survey in selecting industrial sites. Typical wartime site demonstrated. (*No.* 2331 : 24.1).

The Industrialization of Backward Areas. *K. Mandelbaum.* (*Institute of Statistics Monograph No.* 2, *Basil Blackwell, Oxford,* 1945, 10*s.* 6*d.*) Outline scheme for rapid industrialization of over-populated and backward areas of eastern and South-eastern Europe. (*No.* 2600 : 27.6).

Planning Local Prosperity. *K. G. Fenelon.* (*New Era Pamphlets, Art and Educational Publishers,* 1946, 1*s.* 6*d.*) Study of effects of geographical distribution of industry on development and prosperity of localities. Illustrated. (*No.* 2606 : 4.7).

PLANNING : NATIONAL

National Planning : A Polish Approach. *S. Malessa.* (*Architects' Journal, August* 30, 1945, *pp.* 151-154.) Poland's national and regional planning organization and policy since 1924 resulting in demand for national plan in 1938. Importance of national master plan stressed without which successful regional planning impossible. Various stages of findings of national survey. (*No.* 2376 : 14.2).

Qualified Planners : France Points the Way. *B. S. Townroe.* (*Architects' Journal, October* 4, 1945, *pp.* 241-243.) Digest of current events and trends in French reconstruction. Formation of general delegation of National planning in 1921. Protection of historical monuments

and improvement of their setting. Residential and industrial zoning. Comprehensive town planning legislation administered by grand council of town planning set up in 1943. Qualified planners to advise each town with more than 10,000 inhabitants. Planning of new housing estates and safeguarding of open spaces against speculative building. Hundreds of excellent plans available. (*No.* 2377 : 14.2).

Planning and Reconstruction in Northern Ireland. (*Royal Society of Ulster Architects*, 1945.) Illustrated report issued by Council of Royal Society of Ulster Architects. Review of present problems. Such aspects discussed as : Planning and the land ; population : its distribution, work, housing and recreation ; traffic ; architecture of planning and reconstruction. (*No.* 2414 : 7.3).

A National Plan for Burma. (*Architects' Journal Physical Planning Supplement, May* 2, 1946, *pp.* 339-344.) Preparation of National Plan for Burma initiated by P. J. Marshall and W. Tatton-Brown. Three planning reports. Commentary on planning and discussion activities of SEAC Service Arts and Technical Organisation (SATO). Extracts from second and third reports dealing with case for national plan. (*No.* 2863 : 26.12).

PLANNING : NEIGHBOURHOODS

Up Your Street Exhibition. *Walter Segal.* (*Architects' Journal, August* 9, 1945, *pp.* 97-100.) Link between individual home and town planning demonstrated in special housing centre exhibit, *Up Your Street*, at *Daily Herald* post-war homes exhibition. Effects of good and bad neighbourhood planning in relation to one large site explained in two models. (*No.* 2342 : 31.1).

American Small House Exhibition at the Museum of Modern Art. (*Architects' Journal, August* 30, 1945, *pp.* 155-159.) Illustrations from Tomorrow's Small House Exhibition showing plans and models of houses designed by well-known American architects for average American family at prices ranging from 4,000 to 6,000 dollars. Aim to demonstrate advantages of modern planning, building, and mass production methods. Houses based on dimensional module. Exhibition includes scheme of model community incorporating exhibited house designs. (*No.* 2378 : 14.2).

PLANNING : NEW TOWNS

Evidence Submitted by the Institute of Landscape Architects to the New Towns Committee of the Ministry of Town and Country Planning. *Prepared by J. W. R. Adams, B. Colvin, and S. Crowe.* (*Journal of the Institute of Landscape Architects April*, 1946, *pp.* 16-20.) Report dealing with topography, climate and land use from landscape architect's point of view. (*No.* 2666 : 15.8).

New Towns and Playing Fields. *W. H. Biddlecombe.* (*Parks and Sports Grounds, August*, 1946, *pp.* 373-375.) Requirements and suggested allocation of acreage per neighbourhood. (*No.* 2787 : 31.10).

Factors Influencing the Layout of New Towns. *Association for Planning and Regional Reconstruction.* (*APRR*, 1946.) Paper submitted by British Committee to International Technical Congress, Paris, September 16-21, 1946. Introduction. Lessons of inter-war housing estates. Growth of new towns. Selection of industry and population. Transport. Diagrams. Informative statement. (*No.* 2813 : 14.11).

PLANNING : RECREATIONAL

The Movable Dwelling : Is it Adequately Controlled ? *Dr. T. L. Scott.* (*Journal of the Royal Sanitary Institute, January*, 1946.) Growing demand for sites, speeded by housing shortage and holidays-with-pay. Threat to rural amenities and beauty spots. Public health dangers. Inadequacy of existing statutory powers for control. Suggested remedies. Necessity for legislation. (*No.* 2441 : 21.3).

Evidence Submitted to the National Parks Committee of the Ministry of Town and Country Planning. *Institute of Landscape Architects.* (*Journal of Institute of Landscape Architects, April*, 1946, *p.* 21.) Regional Parks. Numbers of holiday visitors. Footpaths. Planting. Nature conservation. (*No.* 2673 : 22.8).

PLANNING : REGIONAL

Regional Replanning : An Outline for a Survey and Plan. *D. Dex Harrison, P. Whiting, K. Smith.* (*Architects' Journal, June* 28, 1945, *pp.* 477-482.) Simple illustrative method of procedure and presentation to show various planning stages between initial and final proposals for any region. London region taken as example demonstrating method by means of 17 planning diagrams from industrial pattern to final plan of region. (*No.* 2333 : 24.1).

Planning Progress in Wales. *Clough Williams-Ellis.* (*Architects' Journal, May* 10, 1945, *pp.* 349-352.) Welsh reconstruction problems explained as result of division of area into industrial south, agricultural middle, and mountainous north. Co-ordinated planning policy impossible without definite formulation of national programme. Steps towards creating better conditions in blighted industrial areas include setting up of National Industrial Development Council of Wales to attract new industries and special areas legislation in connection with trading estates. Planning matters under consideration : Severn barrage scheme, arterial south-to-north trunk road, new bridge at Conway, provision of holiday camps; preservation of prospective national park territories. (*No.* 2340 : 31.7).

The Greater London Plan, 1944. *Sir Patrick Abercrombie.* (*HMSO*, 1945, 25*s.*) Synopsis of proposals in *Architects' Journal*, March 13, 1945, pp. 205-212. Analysis by E. C. Kent and F. J. Samuely in *Architects' Journal*, November 1, 1945, pp. 313-327. (*No.* 2381 : 14.2).

PLANNING : RURAL

Sheffield's Green Belt. *W. Hunt.* (*Sheffield and Peak District Branch of CPRE*, 1*s.*, 1945 ; *reviewed in Architects' Journal, March* 22, 1945, *p.* 226.) Sheffield Green Belt Scheme approved by City Council in 1938 as part of general development plan. Unco-ordinated development since endangers clearly defined boundary between residential areas and agricultural reservation. Importance of fixing exact boundaries of green belt. (*No.* 2296 : 3.1).

Housing in Rural Areas : *Report of One-Day Conference at Housing Centre, May*, 1945. (*Housing Centre*, 1945, 1*s.*) Problems of rural water supply and sewerage, rural housing policy, industry in relation to village life, Housing Societies and countryside. (*No.* 2355 : 7.2).

Russian Villages. *N. Shestopal.* (*Architects' Journal, May* 31, 1945, *pp.* 403-404.) Description of procedure adopted for reconstruction of villages in USSR. Long-term interest free loans to farmers. Surveying and marking of building sites as well as supply of timber free of charge. Farmers' houses designed by State architects and built by special brigades of building workers. Rural districts planned as single economic units. Small size villages accommodate members of one collective farm. Communal farmland situated around village for easy access. Farmers' personal smallholdings of from 1 to 1½ acres along wide, tree-lined streets. Communal facilities include schools, reading rooms and clubs. (See also A.J. 10 : 5 : 45, p. 348 for drawings of Russian village buildings.) (*No.* 2380 : 14.2).

Rural Reconstruction. *C. S. Orwin.* (*Farming, March-April*, 1946, *p.* 23.) Place of agriculture in national planning. Survey of some current views on countryside planning. Misconceptions on what is meant by prosperous agriculture. Planning rural community as progressive part of national life. Place of townsman in country. Dangers of country becoming parasitic on towns. (*No.* 2553 : 16.5).

PUBLIC UTILITIES

Cremation Cemeteries. (*Architects' Journal, October* 4, 1945, *p.* 244.) Short historical survey of methods of disposal of the dead. Funeral management as a public utility to combat commercial exploitation. Garden of Remembrance as living memorial instead of lifeless blocks of stone. Burial grounds town planning problem. Cremation most sanitary and economic method of disposal. 125-acre cremation cemetery at Basle, Switzerland. (*No.* 2309 : 10.1).

Roads and Road Transport : Reconstruction of Roads and Development of Road Transport. *A Report* (*British Road Federation*, 1944, 1*s.*) Background of reconstruction policy. Principles of road transport development. Planning, construction and maintenance of roads. Statements by various authorities, including Sir Charles Bressey. (*No.* 2468 : 4.4).

Planning and Transport : Their Effects on Industry and Residence. *W. Segal.* (*J. M. Dent*, 1945 3*s.* 6*d.*) Book in series *Building and Society* prepared for Co-operative Permanent Building Society and edited by E. C. Fairchild. Discussion of principles of zoning. Planning of roads. Land subdivision. Open spaces. Residential units. (*No.* 2481 : 11.4).

Proposals for a Greater London Water Area. *Metropolitan Water Board.* (*Metropolitan Water Board*, 1946.) Report on planning proposals to meet water needs of Greater London. Delineation of water area. Proposed boundary. Community interest in resources. Executive control. Useful statistical information. (*No.* 2757 : 10.10).

Airport Planning for Urban Areas. *US Department of Commerce : Civil Aeronautics Administration.* (*US Government Printing Office*, 1945, 20 *cents.*) Official bulletin dealing with aerodrome planning, site selection and estimating needs for various types of aerodromes. Five appendices. (*No.* 2768 : 17.10).

Basic Road Statistics, 1946. (*British Road Federation*, 1946, 1*s.*) Annual reference booklet providing detailed data on all essential road matters. (*No.* 2801 : 7.11).

Transport. *F. P. Antia.* (*Oxford Pamphlets on Indian Affairs, No.* 34, *Oxford University Press*, 1946, 9*d.*) Account of transport position in India based on latest available data, urging need for closely co-ordinated system of development. (*No.* 2802 : 7.11).

Road Communications in Northern Ireland : Interim Report of the Planning Commission. *Government of Northern Ireland.* (*HMSO*, 1946, *Cmd.* 241, 1*s.*) Existing road system. Proposals for revision. General considerations. Useful technical data. (*No.* 2823 : 21.11).

RETAIL DISTRIBUTION

Shops : Their Number and Distribution. *Rachel Caro.* (*Architects' Journal, April* 9, 1945, *pp.* 295-298.) Description of methods to determine acreage for shops in neighbourhood of 10,000 persons. Calculations based on various types of surveys, which, linked together, provide basis for local adjustments. Conditions studied include : grouping of shops ; survey of shops ; survey of budgets ; estimate of turnover ; persons per shop ; types of shops. (*No.* 2330 : 24.1).

Planning Neighbourhood Shopping Centres : A Study of Neighbourhood Retail Trade Requirements and the Use of Purchasing Power as a Yardstick in Planning to Meet Them. *M. Villanueva.* (*National Committee on Housing, Inc., New York*, 1945, £1.00.) Study of existing conditions. New patterns for commercial centres. Valuable statistics tables. (*No.* 2866 : 26.12).

SOCIAL SERVICES

Planning Our New Schools. *Report of* 1945 *Conference of RIBA, National Union of Teachers, ABT.* (*RIBA, NUT, ABT*, 1*s.* 6*d.* *Also partly reported in Architects' Journal, June* 7, 1945, *pp.* 429-431.) Discussion of effects of 1944 Education Act on school building. Four sessions : 1944 Act and new building regulations ; Nursery and Primary schools ; Secondary schools ; buildings for further education. (*No.* 2307 : 10.1).

RIBA Report on Post-War School Buildings. (*Architects' Journal, August* 23, 30, 1945, *pp.* 144-xlvi, *p.* 162.) Synopsis of report by special RIBA committee under following : General Problem ; Architects' Contribution ; Delays in Administrative Procedure ; Methods of Construction, available Material, and Supply of Labour (with Note on Wartime Hutting) ; Improvement of Existing Buildings. (*No.* 2308 : 10.1).

Old People's Welfare : A Guide to Practical Work for the Welfare of Old People. *The National Old People's Welfare Committee* (*National Council of Social Service*, 1945, 1*s.* 6*d.*) Visiting old people. Home helps. Communal activities. Housing needs. Useful bibliography. (*No.* 2592 : 20.6).

SURVEY TECHNIQUE

Planner's Quiz. (*Architect's Journal, January* 4, 1945 ; *February* 1, 15, 1945 ; *March* 1, 22, 1945 ; *April* 5, 1945 ; *May* 17, 31, 1945.) Series of parts of maps taken from *A Rapid Method of District Survey*, prepared by Association for Planning and Regional Reconstruction to demonstrate labour-saving procedure as alternative to thorough diagnostic survey. Information supplied on A, symbols used in preparation of maps ; and B, published sources from which details shown on maps were taken. Maps cover : Relief, Rock Types, Water, Farmland, Sites for Preservation, Distribution of Population, Administrative Boundaries and Population Changes. (*No.* 2297 : 3.1).

Household Classification. *Ruth Glass.* (*Association for Planning and Regional Reconstruction, Report No.* 37, 1946, 2*s.* 6*d.*) Method of classification adopted to find, number, size and type of existing, as well as potential, households in order to establish total number of dwellings needed and their distribution by size and type. (*No.* 2516 : 24.4).

SURVEYS : FACTUAL

Middlesbrough Survey and Plan. *Prepared by Planning Team under Direction of Max Lock, Town Planning Consultant to Middlesbrough Corporation, with Association for Planning and Regional Reconstruction and Wartime Social Survey.* (*Architects' Journal, August* 2, 1945, *pp.* 79-90.) Story of Middlesbrough Town and new plan illustrated by survey maps and proposals based on them, covering : Land Use and Land Use Proposals, Industry, Transport, Housing, Neighbourhoods, Open Space, Health, Education, Shops, the Town Centre. (*No.* 2294 : 3.1).

An Estate Replanned : Study of Gorhambury in the County of Hertfordshire. (*Architects' Journal, November* 22, 1945, *pp.* 375-380.) Survey of 1,800 acres country estate near St. Albans prepared by Association for Planning and Regional Reconstruction as basis for future development. Mainly concerned with : Requirements of good farming ; best use of land ; estate development in relation to surrounding district ; incorporation of outstanding features of historical significance ; requirements of farmworkers and provision of recreational facilities. (*No.* 2335 : 24.1).

Chelmsford Survey. *A. Minoprio, H. G. C. Spencely, and L. F. Richards.* (*Architects' Journal, June* 21, 1945, *pp.* 457-459.) Survey and plan of Chelmsford organised by Chelmsford area planning group. Research undertaken with active co-operation of residents and many local organisations. Survey divided into two parts : (1) factual survey (2) public opinion survey. Results as basis for tentative planning proposals. (*No.* 2341 : 31.1).

The Blue Belt : Coastal Preservation and Planning. Survey of the Island Shores. *J. A. Steers.* (*Architects' Journal, September* 27, 1945, *pp.* 225-228.) Notes on maps and fieldwork in survey of England's coastline. Valuation of various parts of coast for classification purposes. Preservation of unspoilt coastal amenities. Protest against careless industrial development and disfigurement of coastline. Recommendations for erection of well-designed holiday camps. Coastal areas as nature reserves. Need for national policy. (*No.* 2343 : 31.1).

A Profile of Bethnal Green. *Ruth Glass and Maureen Frenkel.* (*Association for Planning and Regional Reconstruction Report No.* 39, 1946, 5*s.*) Summary of major results of Neighbourhood Survey of Bethnal Green carried out by APRR. Five survey maps. (*No.* 2515 : 25.4).

Housing Estates : A Study of Bristol Corporation Policy and Practice Between the Wars. *R. Jevons and J. Madge.* (*J. W. Arrowsmith, Bristol*, 1946, 7*s.* 6*d.*) House-to-house survey of Bristol Corporation's housing estates sponsored by University of Bristol Social Survey Bibliography. Illustrated. (*No.* 2599 : 27.6).

Physical Survey of Merseyside : A Background to Town and Country Planning. *W. Smith.* (*University Press of Liverpool*, 1946, 5*s.*) Physical survey of Merseyside from Geographer's point of view with particular reference to surface forms of landscape and to climate. Illustrated. (*No.* 2617 : 11.7).

PLUMBING and Sanitation

DISINFESTATION

New Remedies in Disinfestation. *Dr. J. L. Burn,* (*Journal of the Royal Sanitary Institute. January*, 1946.) Trials of DDT on large grossly infested building. Part of building left untreated as control. Long-term toxicity of DDT demonstrated. Use of DDT against flies and cockroaches. Notes on Naples typhus epidemic, Gammexane, Tetmosol soap. (*No.* 2457 : 28.3).

The Use of DDT as an Insecticide. *Col. M. H. Webster.* (*Journal of the Royal Sanitary Institute, January*, 1946.) Chemical nature and history of DDT. Methods of use. Addition of DDT to distempers and paints. Control of specific insects. (*No.* 2468 : 28.3).

DRAINAGE : SITE LAYOUT

Site Investigation Applied to Sanitary Engineering. *S. J. Button.* (*Journal of the Institution of Sanitary Engineers, July*, 1946, *Vol. XLV, p.* 394.) Elementary principles of soil mechanics. Indication of site investigation methods. Geophysical exploration by electrical methods. Principles and methods in non-technical language. (*No.* 2817 : 14.11).

INTERCEPTORS

The Intercepting Trap and Drainage Costs. *John Wilton.* (*The House Builder, July*, 1946, *p.* 132.) Cost of providing interceptors. Described as obsolete in modern practice. Summary of findings of Departmental Committee of 1912. Circumstances in which interceptors may be necessary. Argument for their omission in other cases. (*No.* 2818 : 14.11).

MANHOLES

Cast Manhole Covers, Road Gully Gratings and Frames. *British Standard* 497 : 1945 (*British Standards Institution*, 3*s.* 6*d.*) Qualities of cast iron or steel. Quality of finished castings. Tables, diagrams, of weights and dimensions. Bituminous protective coating. Loading tests. Inspection at works. All Standard covers to be marked. Manufacturer to supply certificates. (*No.* 2550 : 9.5).

Means of Access to the Domestic Drain. *John Wilton.* (*Architects' Journal, August* 29, 1946, *p.* 151.) Necessity for manholes to domestic drains questioned. Majority of manholes built redundant. Lessons of American practice. Need for statistical investigation into frequency of stoppage and use of manholes. Possibility of reducing housing costs by rational approach. (*No.* 2819 : 14.11).

PIPES

Lead and Lead Alloy Water Service Pipes Below Ground. (*Bulletin issued by the Lead Industries Development Council.*) Causes of failure in Service Pipes. Specification of material. Practical points in installation. B.S. Specifications. (*No.* 2408 : 28.2).

Thermal Properties of Copper and Copper Pipes. *Handbook from the Copper Development Association* (*Reprinted from the Heating and Ventilating Engineer, August*, 1945.) General description of thermal properties. Comparison of performance of copper and iron or steel pipes. Several detail points of interest in connection with heating and hot water installations. Effect of low thermal capacity and low radiant emissivity on fuel economy. (*No.* 2634 : 25.7).

The Laying of Stoneware Pipes for Drains and Sewers. *L. B. Escritt.* (*Architects' Journal, March* 21, 1946.) Good and questionable methods of laying pipes with and without concrete bedding. (*No.* 2635 : 25.7).

The Domestic Drain Pipe. *John Wilton.* (*The House-Builder, May*, 1946. *Vol. V, p.* 103.) Need for care in specification. Existing British Standards and their weaknesses. Confusion in nomenclature. The " seconds " pipe, its uses and defects. (*No.* 2698 : 29.8).

Vital Minimum Uses of Lead Sheet and Pipe in House Building. (*Lead Industries Development Council.*) Application of Ministry of Works Economy Memorandum on use of lead in building. Roofing, flashings, valley gutters. Supply and distribution pipes for water. Waste and soil pipes. Gas connections. Use of alloys. Illustrated. (*No* 2699 : 29.8).

Water-Seal Overflows. (*The Plumbing Trade Journal, March*, 1946, *p.* 53.) Frost damage due to entry of cold air through overflow pipes. Comparison of existing methods of prevention. New method. (*No.* 2700 : 29.8).

Advantages of Cement Linings for Cast-Iron Pipes. *Thomas W. Wolfe.* (*Contractors' Record, Waterworks Supplement, May*, 1946, *p.* xcvi.) Cement linings increase working life of cast-iron mains by preventing interior deposit. Friction losses in old pipes ; theoretical and in practice. Experience with lined pipes in USA. Possibilities of using smaller diameter pipes when lined, to reduce first cost. (*No.* 2701 : 29.8).

Lead Pipes, Silver-Copper-Lead Alloy. *British Standard* 1,085 : 1946. (*British Standards Institution*, 2*s.*) Composition of standard alloy. Weights of pipe and working pressures. Standard marking. Testing. (*No.* 2702 : 29.8).

Copper Pipe-line Services in Building. (*Copper Development Association, Publication No.* 25, 1945.) Uses of copper pipe for plumbing, sanitation, gas services, and electrical conduit. Workmanship details, jointing, bending, and fitting. Pipe sizing. Design of installation. Comprehensive and practical. Extensively illustrated. (*No.* 2821 : 14.11).

PLUMBING AND SANITATION : GENERAL

Plumbing. *R. H. Winder.* (*Building Craft Series, Longmans Green*, 7*s.* 6*d.*) Intended for technical students in Technical Schools, Colleges, and Government Training Centres. Up-to-date, practical and well-written book of value to architectural students and others. Good clear drawings. (No. 2637 : 25.7).

Plumbing and Gas-fitting. *Edited by E. Molloy.* (*George Newnes, Ltd.*, 1946, 15*s.*) Text-book for practical craftsmen and building inspectors. Comprehensive. (*No.* 2743 : 26.9).

Sanitation, Drainage and Water Supply. *G. Eric Mitchell.* (*George Newnes, Ltd.*, 1946, 12*s.* 6*d.*) Revised and enlarged edition of book formerly published as *Modern Sanitary Engineering*. Deals clearly with sanitation problems of domestic buildings. Good condensed information on damp prevention, and summary of bye-laws controlling water supply and internal plumbing. (*No.* 2744 : 26.9).

RURAL WATER SUPPLY

Some Problems of Water Supplies in Rural Areas at Home and Overseas. *John H. Goodridge, G. W. Fuller, and E. B. Lockett.* (*Journal of the Royal Sanitary Institute, April*, 1946, *p.* 130.) Rural water supply problem reviewed in light of war-time experience. Consumption estimates. Farm requirements. Requirements of distribution systems. Fire needs. Costs. Some war-time problems. (*No.* 2570 : 30.5).

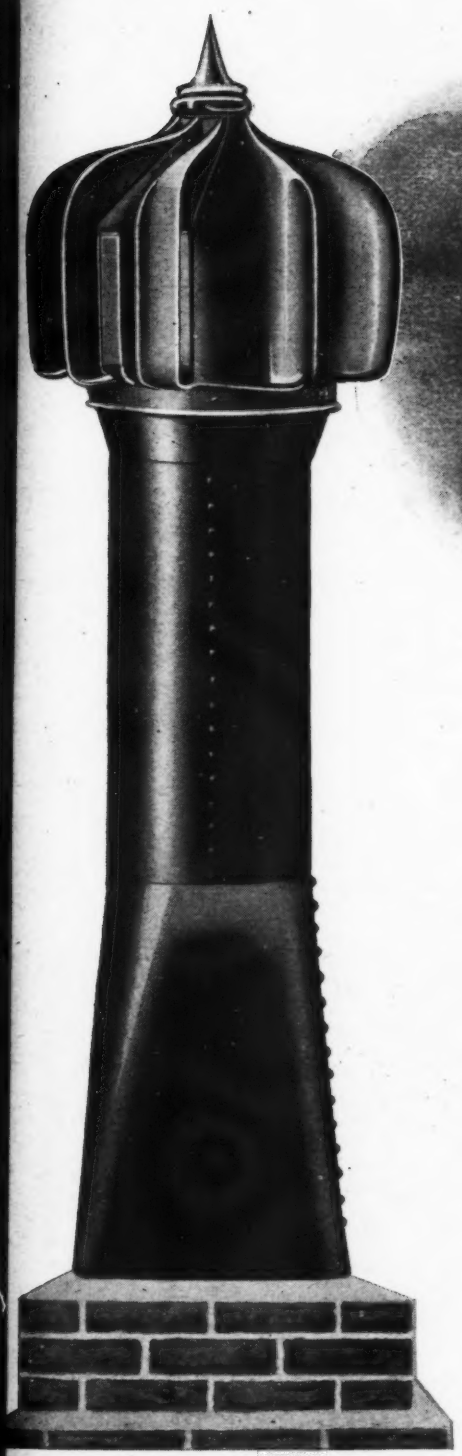
SANITARY FITTINGS

Brackets and Supports for Lavatory Basins and Sinks. *British Standard* 1255 : 1945. (*British Standards Institution*, 2*s.*) Materials, workmanship, construction, dimensions, weight and finish. Cantilever and leg support types. (*No.* 2351 : 31.1).

W.C. Seats (Plastics). *British Standard* 1254 : 1945. (*British Standards Institution*, 1*s.*) Phenol or urea plastics. Design, hinging, buffers, dimensions. (*No.* 2352 : 31.1).

New Products for 1946. (*Plumbing and Heating Journal, USA, January*, 1946, *p.* 76.) Review of sanitary appliances, plumbing fixtures, pipe joints, tools, etc., said to be new to American market this year. Manufacturers'





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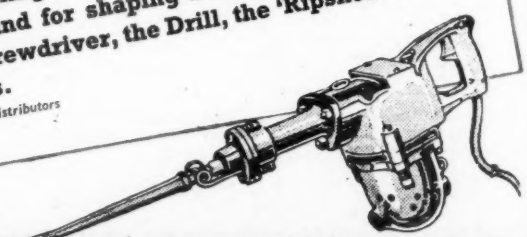


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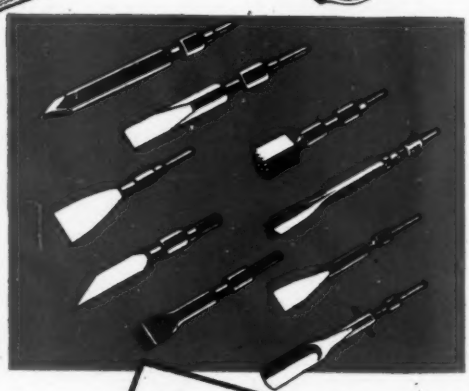
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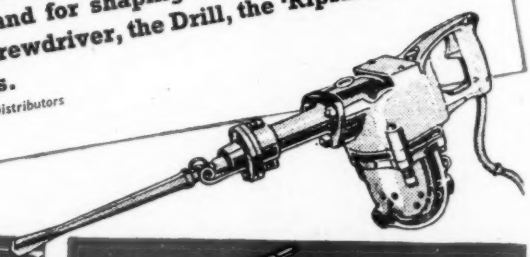


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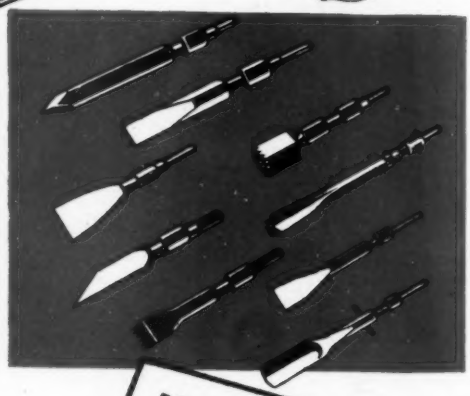
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claims. Products illustrated. (*No.* 2548 : 9.5).

Ferrous Traps for Baths. *BS* 1,291 : 1946. (*British Standards Institution*, 2*s.*) Grades of cast iron. Dimensions and drawings. Standard finishes. Traps for use with standard cast iron baths to BS 1189. (*No.* 2703 : 29.8).

SERVICES : FACTORIES

Public Health (Drainage of Trade Premises) Act, 1937. *B. Robinson.* (*Journal of the Institution of Municipal and County Engineers, March*, 1946, *p.* 297.) Factory waste disposal problem. Its effect on planning of virgin areas. Working of Act examined. Duties and rights of Local Authority. (*No.* 2549 : 9.5).

Amenities in Wartime Factories. *Bulletin No.* 5. (*Department of Labour and National Service, Commonwealth of Australia.*) Facilities for canteens, locker rooms, toilet and washing and first aid. Clear and simple with illustrations. Primarily for client rather than architect. Useful space and dimension standards. (*No.* 2636 : 25.7).

SERVICES : HOUSING

The Unfit House. *J. E. Blease.* (*Journal of the Royal Sanitary Institute, January*, 1946.) What to do with non-slum but substandard house. Available urban accommodation today consists largely of such houses. Requirements for reconditioning. Obstacles are cost, lack of adequate legal powers. Remedies, and cost analysis of typical houses. (*No.* 2400 : 21.2).

Housing and Drainage. *L. B. Escritt. Paper read at HC Conference on Public Services and Housing, January* 18, 1946. (*Municipal Engineering, January* 31, 1946, *p.* 61.) Concise and useful statement of what estate planner should know about drainage. Review of drainage systems. Calculation of flows. Site investigations for housing schemes. Importance of drainage to choice of site. Sewage treatment. Disadvantages of cesspools. Siting of treatment works. (*No.* 2512 : 18.4).

Consumption of Domestic Food-Waste Grinders. (*Sewage Engineering, USA, November*, 1945.) Details of investigations of water used. Effect of discharge of macerated wastes into sewers. (*No.* 2513 : 18.4).

The Collection of Kitchen Waste : Result of Experiments at East Ham. *W. H. Price.* (*Municipal Engineering, March* 28, 1946, *p.* 196.) Experiments to replace war-time communal refuse bin. Provision of separate containers to each household advocated. Probable cost of separate container system and advantages. Increased yield of better quality obtained. Waste collection as economic necessity. (*No.* 2571 : 30.5).

Some Common Defects in Plumbing Designs for Post-War Repetition Dwellings. *Information Bureau, Building Research Station.* (*Building Research Station, August*, 1946.) Notes on design defects observed in recent schemes submitted to BRS for comment. Supplementary to comments on pre-war practice in Plumbing Committee's Report. Special emphasis on unjustified expenditure, relation between plumbing and house plan. Valuable critical commentary on present design tendencies. (*No.* 2828 : 21.11).

SEWERS AND SEWERAGE

Surface Water Sewer Design : The Case for a Code of Practice. *G. S. Short.* (*Journal of the Institute of Municipal and County Engineers, January*, 1946.) General survey of accepted methods of design. Unreality of mathematical analyses. Assumptions based on guesswork. Failure of theory to relate to practical cases. Need for practical investigation. Authoritative Code of Practice required, to be subject to revision in light of experience. (*No.* 2401 : 21.2).

Sewerage and Sewage Disposal in Retrospect and Prospect. *M. Lovett.* (*Journal of the Institute of Municipal and County Engineers, April* 2, 1946, *p.* 360.) History shows how progress in sewerage and sewage disposal has lagged behind immediate needs. Vital service to community. River pollution. Should sewers carry storm water? Some disadvantages of combined drainage. Disposal works design. (*No.* 2572 : 30.5).

Sewers and Drains. *BS Code of Practice. Draft for Comment. General Series Code* 3,132 : 1946. (*British Standards Institution*, 2*s.*) Draft code for pipe sewers and drains up to 12 in. diameter. Correct usage of different types of pipe. Approved methods of laying, jointing and testing pipes. (*No.* 2745 : 26.9).

Concreting of Sewers and Drains. *BS Code of Practice. Draft for Comment. General Series Code* 3,133 : 1946. (*British Standards Institution*, 1*s.*) Concrete supports to pipe sewers and drains. Circumstances in which required. Pipes in bad ground. Methods of placing concrete. (*No.* 2746 : 26.9).

Sewer Connections. *BS Code of Practice. Draft for Comment. General Series Code* 3,135 : 1946. (*British Standards Institution*, 1*s.*) Connection of drains and private sewers to public sewer. Powers of Local Authority. Dealing with large differences in level. (*No.* 2747 : 26.9).

The Design of Relief Sewers. *W. H. Norris.* (*Journal of the Royal Sanitary Institute, July*, 1946, *Vol. LXVI, p.* 179.) Flooding in Bedford due to surcharge of sewers by storm water. Theoretical calculations checked by actual flow measurements over long period. Validity of Ministry of Health formulæ demonstrated. (*No.* 2748 : 26.9).

Some Modern Developments in Sewage Disposal. *C. R. Deeley.* (*Journal of the Institution of Municipal and County Engineers, September*, 1946. *Vol. LXXIII, p.* 100.) Review of developments in disposal technique since World War I, based on special problems met at Coventry. Experiments in partial purification to increase capacity of available plants. Sludge heating and gas utilization. Present trends in sewage purification. (*No.* 2860 : 19.12).

The Comparative Values of Certain Sewer Sections. *Thomas Donkin.* (*Journal of the Royal Sanitary Institute, August*, 1946. *Vol. LXVI, p.* 441.) Author favours new type of U-shaped sewer section, used with success at Sunderland. Claimed to be 10 per cent. less in cost over equivalent circular sections, and more efficient. Comparative velocity of flow and discharge. (*No.* 2861 : 19.12).

WATER TREATMENT

Water Treatment and Filtration. *W. Mackrell.* (*Journal of the Institution of Sanitary Engineers, July*, 1946, *Vol. XLV, p.* 416.) Principles of filtration by gravity and pressure. Chemical treatment. pH values. Sterilization. Water softening. Useful elementary introduction. (*No.* 2820 : 14.11).

STRUCTURE

APPLIED FINISHES

Recommendations on Methods of Protection against Corrosion for Light Gauge Steel and Wrought Iron Used in Permanent Building Construction. *PD* 420, *November*, 1945. (*British Standards Institution*, 1*s.*) Applies particularly to houses. Painting and coating. (*No.* 2405 : 28.2).

The Practical Painter and Decorator. (*Odhams Press, Illustrated*, 9*s.* 6*d.*) Comprehensive and authoritative introduction to painting and decorating. (*No.* 2416 : 7.3).

The Painting of Buildings. *James Lawrance. ASB Lecture at RIBA on December* 5, 1945. (*Journal of the Royal Institute of British Architects, January*, 1946, *pp.* 78-84.) Exposition of MOW Post-War Building Studies. Report No. 5. Surface treatment, application, pigments and media, primings, undercoats. Painting on wood, steel and ironwork, concrete and plaster. (See No. 1660 : 9.11.44.) (*No.* 2482 : 11.4).

Decoration-Painting. *BS Code of Practice. Draft for Comment. General series code* 2.4. (*British Standards Institution, 2nd Proof*, 2*s.*) Information on paints and distempers and painting processes used in buildings. Comprehensive list of definitions of materials, tools, accessories and painting operations. Description of paint types and their uses of real value. (*No.* 2833 : 5.12).

BOMB DAMAGE AND REPAIR

Repair of Damaged Buildings. *Building Research Station.* (See No. 1843 : 22.3.45.) Further leaflets issued free of charge. No. 15, *Patching of Iron Sheet and Asbestos Cement Roofing.* No. 16, *Removal of Camouflage Coatings, Blackout Paints and Anti-Scatter Treatment.* No. 17, *Shoring and other Precautions against the Collapse of Damaged Buildings and Adjacent Property.* (*No.* 2316 : 10.1).

Repair of Damaged Buildings. *Building Research Station.* (*See Nos.* 1843 : 22.3.45, 2316 : 10.1.46.) Further leaflets free of charge. No. 18, *Reinforced Concrete Columns Damaged by Fire.* No. 19, *Repair of Solid Concrete and Hollow-tile Floors Damaged by Fire.* (*No.* 2399 : 21.2).

L'utilisation de Ciments Expansifs pour la Reparation et la Reconstruction d'ouvrages d'art sinistres. *R. Lévi, H. Lossier.* (*Le Génie Civil, October* 15, 1945, *pp.* 153-155. *See also The Engineer, December* 14, 1945, *pp.* 484-485.) Repair of bomb-damaged structures in France with expansive cement. (*No.* 2454 : 28.3).

Atomic Bomb Damage at Nagasaki. (*Engineering News-Record, December* 20, 1945, *pp.* 834-835.) Supplement to Report by H. W. Richardson (see No. 2197 : 2.11.45). (*No.* 2475 : 4.4).

Repair of Damaged Buildings. *No.* 21, *The Repair of Stone-Work Damaged by Fire. No.* 22, *Assessment and Repair of Damage done by Enemy Bombing to Foundations and other Underground Structures.* (*Building Research Station, Free.*) (*No.* 2763 : 10.10).

The Effects of the Atomic Bombs at Hiroshima and Nagasaki. *Report of the British Mission to Japan.* (*HMSO*, 1946, 1*s.*) Two cities before and after attack. Action of atomic bomb. Blast, heat, radio-active effects. Casualties. Conclusions. 24 photos. (*No.* 2780 : 24.10).

BRICKS

Armerade Tegelconstruktioner. *Hjalmar Granholm* (*Transactions of Chalmers University of Technology, Gothenburg, Sweden, Nr.* 16, 1943. *With Summary in English.*) Report on tests on beams, slabs and columns of reinforced brickwork. (*No.* 2565 : 30.5).

Brickwork. *Draft for Comment. BS Code of Practice. CP :* 1946. *General Series Code* 1.31. (*British Standards Institution*, 3*s.* 6*d.*) Materials. Design Considerations. Work on site. (*No.* 2764 : 10.10).

Brickwork. *E. Lindsay Brailey. Foreword by George Hicks.* (*Pitman*, 1945, 45*s.*) Comprehensive treatise on theory and practice. Manufacture of materials. Measurement of brickwork. (*No.* 2771 : 17.10).

Brick Structures. How to Build Them. *Revised and edited by Ralph P. Stoddard. Eleventh Edition.* (*McGraw-Hill Publishing Co.*, 10*s.*) Practical reference data on materials, design and methods. Manual on brick masonry, with particular reference to brick in small buildings. Reference tables. 100 illustrations. (*No.* 2772 : 17.10).

Bricklayers' Repair Work. *W. Frost.* (*The Technical Press, Ltd.*, 1944, 4*s.* 6*d.*) Manual of instruction. Diversionary section on garden ornamental brickwork. (*No.* 2832 : 5.12).

BUILDERS' PLANT

A Vibratory Concrete Compacting Machine. (*The Engineer, February* 1, 1946, *pp.* 114-15.) Adjustable machine to compact concrete in widths between 8 ft. and 22 ft. May be adapted to maximum width of 27 ft. Applicable up to 12 in. finished thickness. (*No.* 2470 : 4.4).

Tubular Steel Scaffolds. (*Mills Scaffold Co., Hammersmith Grove, W.*6.) Pamphlet of fittings and details of scaffolds with specification and description of plant. Special applications. (*No.* 2487 : 11.4).

BUILDING COMPONENTS

Flush Wood Doors. *BS* 459, *Part* 2 : 1945. (*British Standards Institution*, 2*s.*) Design,

dimensions, materials, construction, details, recommended method of glazing. (*No.* 2318 : 10.1).

Metal Casement Windows and Casement Doors for Domestic Buildings. *BS* 990 : 1945. (*British Standards Institution*, 3*s.* 6*d.*) Dimensions and structural details. (*No.* 2361 : 7.2).

What to Expect in New Building Material and Equipment. (*Engineering News-Record, October* 18, 1945, *pp.* 539-542.) Materials and equipment recently developed in USA. Building boards, floor, wall and roof materials, insulating materials, glass. (*No.* 2407 : 28.2).

Metal Skirtings, Picture Rails and Angle Beads. *BS* 1246 : 1945. (*British Standards Institution*, 2*s.*) Material, methods of manufacture, dimensions. (*No.* 2484 : 11.4).

Clay Plain Roofing Tiles. *BS* 402 : 1945. (*British Standards Institution*, 2*s.*) Revision of specification issued in 1930, adding range of fittings. Test requirements revised. (*No.* 2485 : 11.4).

Sills and Lintels. *BS* 1236—*Clayware Sills*, 1237—*Cast Concrete Sills*, 1238—*Natural, Stone Sills*, 1239—*Cast Concrete Lintels*, 1240—*Natural Stone Lintels.* (*British Standards Institution*, 3*s.* 6*d.*) Types, dimensions, workmanship, tolerances, tests. Both for metal and wood windows. (*No.* 2486 : 11.4).

Cast-Iron Gutters, Fittings and Accessories. Part Two. O. G. Gutters. *British Standard* 1205 : *Part* 2, 1945. (*British Standards Institution*, 2*s.*) Quality of material. Dimensions. Finish. Diagrams. (*No.* 2522 : 25.4).

Metal Door Frames. *BS* 1245 : 1945. (*British Standards Institution*, 2*s.*) Material, sizes, profile, construction, base ties, thresholds, fittings, finish. (*No.* 2567 : 30.5).

Wood Surrounds for Metal Windows. *BS* 1285 : 1945. (*British Standards Institution*, 2*s.*) Design, dimensions, construction and materials of wood surrounds for metal windows conforming with B.S. 990. (*No.* 2568 : 30.5).

Soot Doors for Domestic Buildings. *British Standard* 1294 : 1946. (*British Standards Institution*, 2*s.*) Soot doors for use in concrete and brick flues of houses, flats and schools. Cast-iron with mild steel and brass fittings. Workmanship, quality, size, construction. (*No.* 2619 : 11.7).

Wood Trim. *British Standard* 548 : 1946. (*British Standards Institution*, 2*s.*) Quality, designs and dimensions of architraves, skirtings, picture rails, internal door thresholds, cover strips, quadrant and half round beads and sections. (*No.* 2620 : 11.7).

Sheet Copper Work for Building. (*Copper Development Association. Publication No.* 5, 1946.) Practical detail book for all architectural uses of copper. Methods of workmanship. Corrugated copper roofing and copper tiles. Thorough treatment of subject, including uses not at present economically possible. Well illustrated. (*No.* 2795 : 31.10).

Schedule of Sizes of Locks and Latches for Doors. *British Standard* 455 : 1945. (*British Standards Institution*, 3*s.* 6*d.*). Dimensional standards only for latches and locks. Object is to permit preparation of woodwork and interchangeability in use on doors made to BS 459, Part I, and BS 644 in housing work. (*No.* 2803 : 7.11).

Steel, Bronze and Aluminium Windows. Architectural Metalwork in Wrought Iron, Bronze and Lead. (*Catalogue issued by Wainwright & Waring, High Street, Mortlake, S.W.*) Representative selection of photographs from contracts executed. (*No.* 2870 : 26.12).

BUILDING SCIENCE RESEARCH

The Organization of Building Science Research. *ASB Lecture by Professor J. S. Bernal on March* 6 *at RIBA.* (*The Architects' Journal, March* 14, 1946, *pp.* 224-xxxviii.) Future building research not only technical but sociological and economic. Work of MOW's Scientific Advisory Committee in requirements, materials, structure, building industry. (*No.* 2555 : 16.5).

COMPLETE STRUCTURES : BRIDGES

France Begins Bridge Reconstruction on Seine and Marne at Paris. *Waldo G. Bowman.* (*Engineering News-Record, November* 1, 1945, *pp.* 572-579.) Biggest initial effort of reconstruction of bridges concentrated in Paris region. Bridges and their reconstruction. (*No.* 2403 : 28.2).

Deck Bridge Built of Precast T-Beam Units. (*Engineering News-Record, October* 18, 1945, *pp.* 490-493.) Deck of long reinforced concrete girder bridge precast in 40-ft. lengths in 110-ton sections. (*No.* 2417 : 7.3).

Highway Bridge over the River Leyes. *W. W. Manslau.* (*Civil Engineering, January*, 1946, *pp.* 25-28.) Three span reinforced concrete bridge of box section. (*No.* 2443 : 21.3).

Reinforced Concrete Spun Pipes in Argentina. *Mario Ninci.* (*The Engineer, December* 21 *and* 28, 1945, *pp.* 501-503, 523-524.) Experience with spun pipes in aqueduct of 104 miles. (*No.* 2453 : 28.3).

Emergency Concrete Block Abutment. *Hobart M. Mumaugh.* (*Engineering News-Record, November* 29, 1945, *pp.* 744-45.) Bridge abutment built of precast concrete blocks forming permanent shuttering. Faster and cheaper than standard method. (*No.* 2469 : 4.4).

World's Longest Concrete Arch, 866 ft., Completed in Sweden during the War. (*Engineering News-Record. January* 17, 1946, *p.* 90.) Sandö bridge opened to traffic in July, 1943. Concrete arch largest in world. (*No.* 2483 : 11.4).

Menai Bridge Reconstruction. *G. A. Maunsell.* (*Journal of the Institution of Civil Engineers, January*, 1946, *pp.* 165-206.) History. Form and extent of reconstruction. (*No.* 2506 : 18.4).

Design of Better Bridge Railings. *Martin Deuterman.* (*Engineering News-Record, January* 10, 1946, *pp.* 68-71.) Safety and æsthetic requirements. Principles of designing three functional parts of the railing ; curb, rails and posts. (*No.* 2593 : 20.6).

The Reconstruction of the Longeray Viaduct. *Leslie Turner.* (*Concrete and Constructional Engineering, March*, 1946, *pp.* 62-68.) Large viaduct over Rhone reconstructed in France during the war in reinforced concrete. (*No.* 2607 : 4.7).

Design of Wilbur Cross Parkway Bridges. *John F. Willis.* (*Engineering News-Record, May* 16, 1946, *pp.* 792-7.) Road crossings for Connecticut's express highway. Continuous welded steel girders designed for composite action with concrete slab. (*No.* 2688 : 29.8).

Box Members Distinguish Concrete Bridge. (*Engineering News-Record, June* 27, 1946, *pp.* 996-7.) Large span low cost continuous girder bridge in reinforced concrete. (*No.* 2691 : 29.8).

The Demolition of Waterloo Temporary Bridge. *H. P. T. Lind and P. R. Alderman. Paper read before a joint meeting of the ISE and RIBA on April* 25, 1946. (*The Structural Engineer, April*, 1946, *pp.* 201-222.) Description of structure. Details of demolition. Removal of four concrete-filled steel cylinders 61 ft. high. Extraction of piles. (*No.* 2706 : 5.9).

The Carlisle-Kingsmoor Widening on the LMS Railway. (*Engineering, June* 14, 1946, *pp.* 555-557.) Double track railway bridge in pre-cast R.C. units over River Eden. (*No.* 2770 : 17.10).

Flume Crosses Canyon on a Rigid Frame. (*Engineering News-Record* [*USA*], *October* 3, 1946, *pp.* 448-449.) 264 ft. span reinforced concrete rigid frame of box girder section carrying 1,000 cu. ft./per sec. water over 150 ft. deep canyon. (*No.* 2867 : 26.12).

COMPLETE STRUCTURES : HOUSES

The Wimpey House. *Eric Collins, Consulting Architect.* (*The Builder, August* 31, 1945, *pp.* 169-173.) Open-front construction using no-fines concrete with brick-built front. Pair of pilot houses at Eastcote. (*No.* 2310 : 10.1).

Experimental Houses, Coventry. *D. E. E. Gibson, Architect.* (*The Builder, November* 2, 1945, *pp.* 346-348.) Framework of tubular steel members. See 1310 : 2.12.43 and 1342 : 30.12.43. (*No.* 2311 : 10.1).

Solar House of Flexible Unit Construction. *G. F. Keck.* (*The Architects' Journal, December* 6, 1945, *pp.* 411-414.) Standard parts of 3 ft. 3 in. width applied to variable plans of one storey solar-orientated house. Ducts for heating in floor tiles. (*No.* 2312 : 10.1).

Swedish Timber Houses. (*The Architects' Journal, December* 6, 1945, *p.* 410. *The Builder, July* 13 *and October* 19, 1945, *pp.* 28-30 *and* 312-313. *Architectural Design and Construction, December*, 1945, *pp.* 305-310.) Government ordered 5,000. Design of four types. Thermal insulation about twice that of brick. (*No.* 2313 : 10.1).

System of Construction for a House of Steel. *Max Lock and M. J. Blanco White, Architects.* (*The Architects' Journal, October* 4, 1945, *pp.* 245-248.) Light rolled steel frame with two-storey high verticals at 3 ft. 6 in. centres. Wall panels 14 g. steel sheets. Floor joists spanning full width. (*No.* 2314 : 10.1).

The B-J House. *J. H. Markham.* (*Architectural Design and Construction, November*, 1945, *pp.* 262-265.) Steel framed structure clothed externally with prefabricated panels. (*No.* 2338 : 24.1).

Technical Note on Some Types of Permanent Prefabricated Houses. (*MOH Circular* 182/45, *October* 16, 1945.) Recommendations to local authorities. Brief technical descriptions and diagrammatic drawings of seven types of construction. (*No.* 2360 : 7.2).

Laing's Easiform Permanent House. *D. A. Adam and F. Stobart, Architects.* (*The Builder, November* 16, 1945, *pp.* 393-394.) Cavity concrete wall cast *in situ* with special shuttering. (*No.* 2384 ; 14.2).

BCCF Bungalow in Precast Concrete Units. (*The Builder, December* 7, 1945, *pp.* 456-58.) Framed outer structural shell of precast columns and beams with precast concrete infilling panels. Internal wall linings and partitions of lightweight concrete, hollow blocks, etc. Flexible layout, easy erection with light mobile hoist. (*No.* 2406 : 28.2).

The Airey Permanent Prefabricated House. (*The Builder, December* 14, 1945, *pp.* 478-480, *and other journals.*) Walls composed of precast concrete posts clad by slabs in vibrated concrete. (*No.* 2434 : 14.3).

A New Technique of Stone Construction. *Experimental Houses at Pollock, Glasgow.* (*The Builder, December* 14, 1945, *pp.* 476-77.) New method of masonry construction. Hand labour reduced by standardization of sizes and use of machines. (*No.* 2435 : 14.3).

The Keeland System of House Construction. (*The Builder, December* 28, 1945, *p.* 522.) Post and panel system in Cheecol lightweight concrete. (*No.* 2436 : 14.3).

Arcon Mark V. (*The Architect and Building News, February* 1, 1946, *pp.* 67-69.) Further modifications of Arcon bungalow (see No. 1709 : 14.12.44) going into full-scale production. Organization of production, distribution and delivery. (*No.* 2471 : 4.4).

Arrow Permanent Housing. *Thomas S. Tait.* (*The Builder, January* 25, 1946, *pp.* 94-95.) Prefabricated concrete bungalow with steel truss roof. Method adaptable to larger houses. (*No.* 2472 : 4.4).

Concrete House in Conslab Construction *P. M. Powell and Charles Woodward.* (*The Builder, January* 18, 1946, *pp.* 68-69.) Walls cast *in situ* between precast external and internal slabs. (*No.* 2473 : 4.4).

Precast Concrete Houses. *Exhibition at Buckingham Gate.* (*The Builder, March* 15, 1946, *pp.* 262-263, *and April* 19, *p.* 382. *See also Architectural Design and Constructional, April*, 1946, *pp.* 112-115.) Systems shown by full size sections. Wates, Orlit, Airey, BCCF single-storey, BCCF 2-storey, Stent, Stonecrete, MacGirling, Whitson-Fairhurst systems. (*No.* 2554 : 16.5).

The Jemm Flatted House. *Designed by John E. M. Macgregor.* (*The Architects' Journal, February* 7, 1946, *pp.* 127-130.) Framed construction formed by unit *in situ* reinforced concrete piers without the use of temporary shuttering. Precast concrete pier bricks bond into 4½-in. brick wall capped with pier bricks laid on edge, reinforced horizontally. (*No.* 2576 : 6.6).

The Scottwood House. *Designed by British Power Boat Company Ltd.* (*The Architect and Building News, April* 26, 1946, *pp.* 56-59.) Further details of construction. See Inf. Centre No. 2182 : 8.11.45. (*No.* 2621 : 11.7).

House Construction, Second Report. Post-War Building Studies No. 23. *By an Interdepartmental Committee appointed by the Ministe,*



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of Health, the Secretary of State for Scotland and the Minister of Works. (HMSO, 1946, 1s. 6d.) Description of and comments upon prototypes of eight methods of construction. Recommendations on methods of protection against corrosion for light gauge steel and wrought iron in permanent building. Recommendations on condensation within roofs and walls of composite construction and on fire hazard. (*No.* 2643 : 1.8).

The Trusteel Building System. (*Pamphlet issued by Trusteel Corporation (Universal) Ltd., Heath Road, Oxhey, Herts.*) New method of steel framing for light structures. (*No.* 2644 : 1.8).

Unitroy System of House Construction. (*The Architects' Journal, April* 18, 1946, *pp.* 303-306.) Steel framed single- or two-storey building based on 3 ft. module with hipped roof. Walls and roofs clad with panels incorporating reed and cork. Walls faced externally with asbestos sheeting finished with Tyrolean Cullamix and internally with wallboard. External joints sealed with plastic caulking. (*No.* 2652 : 8.8).

The Nuttall House, London Colney, Herts. *G. R. Falkiner Nuttall, Consultant; Orrel H. Nuttall, Architect.* (*The Builder, March* 29, 1946, *pp.* 310-311.) Steel-framed structure of storey-high panel frames of pressed steel surmounted by a pitched roof of pressed steel framing and light tubular steel trusses to accommodate upper floor. (*No.* 2687 : 29.8).

French System of Prefabrication. *Architect: P. Jeanneret. Engineer: Jean Prouve.* (*The Architect's Journal, June* 27, 1946, *pp.* 487-491.) First floor on cantilevered steel beams supported on six concrete posts. Main support of roof: central post with splayed legs standing on first floor and supporting cantilevered ridge piece of steel. Ends of ridge piece tied to floor. Steel roof panels cantilevered from ridge both sides. Wall panels of timber in metal frames. (*No.* 2689 ; 29.8).

Hook-on Slab Reinforced Concrete System. *Designed by E. May.* (*The Architects' Journal, June* 13, 1946, *pp.* 453-5.) Precast concrete slabs suitable for external cladding to any type of building with supporting framework at 3 ft. 0 in. centres designed accordingly. Two prototypes. (*No.* 2690 : 29.8).

The Mac-Girling House. *Designed by John McGregor.* (*Architect and Building News, August* 9, 1946, *pp.* 84-86.) Structure using 4 ft. by 2 ft. by 11 in. hollow concrete wall units. See No. 2554 : 16.5.46. (*No.* 2791 : 31.10).

The 8,000 lb. House. (*The Architects' Journal, August* 22, 1946, *pp.* 138-141.) Four-room, two-bath unit. Round shape, suspended metallic structure. (*No.* 2834 : 5.12).

The Cruden House. (*Crudens, Limited, Musselburgh, Scotland.*) Steel framed, concrete clad prefabricated two-storey permanent house. (*No.* 2853 : 19.12).

COMPLETE STRUCTURES : MISCELL.

Experimental Station Building. *Designed by LMS Architects' Office.* (*The Architects' Journal, December* 6, 1945, *pp.* 415-419.) Steel framed building with awning, based on 3 ft. 4 in. grid. Continuous duct accommodating services round building. Wall panels below cill level in precast concrete, above in vitreous enamel. Wall linings: Metal faced plywood panels on a timber frame with glass silk backing. (*No.* 2315 : 10.1).

Construction of an Underground Factory. *H. V. Lobb. ASB Lecture at RIBA, November* 7. (*The Builder, November* 16, 1945, *pp.* 387-390 *and other journals.*) Details of factory built under chalk escarpment. Excavation, cladding, ventilation. (*No.* 2320 : 10.1).

Modern Designs for Prefabricated and Demountable Buildings. *Research Report by New School for Social Research, New York.* (*Sponsored by Office of Production Research and Development War Production Board, Washington, D.C.*) Details and general arrangement plans of Ratio Structures for schools, warehouses, houses, etc., particularly for use overseas, in timber and in metal. Portable houses. (*No.* 2359 : 7.2).

Construction for Atomic Bomb Production. (*Engineering News-Record, December* 13, 1945. *See also the Architectural Forum, October,* 1945, *pp.* 102-116.) 13 articles with account of history of atomic plants. (*No.* 2507 : 18.4).

The Blister Hangar. *Pamphlet and Specifications.* (*C. Miskin and Sons, St. Albans.*) Arch structure in steel with canvas ends for easy transport and quick erection on roughly levelled sites. (*No.* 2508 : 18.4).

Brazil's Wonder Hotel and Casino : Design of Quintandinha Elliptical Dome. *A. J. Boase.* (*Engineering News-Record, January* 10 *and* 24, 1946, *pp.* 24-28, 64-68.) Unusual features of luxury hotel near Petropolis : roof top landing field for helicopters, 152 ft. reinforced concrete shell dome, 100 ft. rigid frames and trusses. (*No.* 2532 : 2.5).

Building and Staffing of a Maternity Hospital in Wartime. *Charles Cookson.* (*Journal of the Royal Sanitary Institute, April,* 1946, *p.* 137.) City Maternity Hospital at Gloucester, built during war. Twenty-six beds, designed for extension. Medical considerations in planning layout and equipment. Costs analysed—cost per bed, £1,170. (*No.* 2566 : 30.5).

19th Century Train Sheds. *C. L. V. Meeks.* (*The Architectural Forum, February,* 1946, *pp.* 104–109.) Development of railway sheds in England and USA. (*No.* 2586 : 13.6).

Cantilevered Concrete Trusses Provide Open Working Areas in Hangar. *A. J. Boase.* (*Engineering News-Record, May* 30, 1946, *pp.* 850-5.) Caquot type hangar at the Santos Dumont Airport, Rio de Janeiro. Cantilevered roof trusses on either side of central rigid frames. Roof surface formed by cylindrical shells. (*No.* 2669 : 15.8).

High Concrete Walls Partition Building into Curing Chambers for Linoleum. (*Engineering News-Record, June* 27, 1946, *pp.* 978-980.) Building consisting of series of huge reinforced concrete ovens. (*No.* 2727 : 19.9).

The Use of Standard Concrete Hutting for Temporary Hospital Buildings at Ipswich. *J. B. Storey and A. R. Pearce.* (*Journal of the Royal Sanitary Institute, July,* 1946, *Vol. LXVI, p.* 208.) Construction of 72-bed surgical unit with two operating theatres in standard hutting. Planning and construction problems. Theatres without natural lighting. Fluorescent lighting in wards. Constructional amendments to standard concrete hutting required for temporary hospital use. Possibilities for use of hutting to meet present shortage of accommodation. (*No.* 2736 : 26.9).

Bus Garage at Wythenshawe, Manchester. *Architect: Noel Hill.* (*The Architects' Journal, September* 5, 1946, *pp.* 176-177-178.) Large span cylindrical shell construction. (*No.* 2793 : 31.10).

COMPLETE STRUCTURES : TANKS, ETC.

Two-Way Prestressed Concrete Water Storage Tank. *J. R. Carr.* (*Engineering News-Record, October* 4, 1945, *pp.* 434-439.) Walls of huge tank prestressed both horizontally and vertically. (*No.* 2362 : 7.2).

Huge Underground Vaults Built Oiltight. *N. A. Bowers.* (*Engineering News-Record, December* 27, 1945, *pp.* 873-877.) Underground vaults for storage of oils built in solid rock in the Hawaiian Islands. Concrete-lined vertical cylinders, 100 ft. in dia. and 250 ft. high overall. with dome-shaped ends at top and bottom. Walls pre-stressed. (*No.* 2594 : 20.6).

Gasholder Tank Construction. (*The Builder, August* 30, 1946, *p.* 226.) Reinforced concrete gasholder tank at South Gosforth. New features. (*No.* 2794 : 31.10).

Elevated Tank Design Simplified by Conical Base and Tubular Legs. (*Engineering News-Record [USA], September* 5, 1946, *p.* 309.) Welded steel tank supported on tubular legs without bracing. (*No.* 2843 : 12.12).

Precast Sectional Walls and Roof Allow for Uneven Reservoir Settlement. (*Engineering News-Record (USA), August* 22, 1946, *pp.* 244-248.) Articulated design utilizing precast concrete slabs for walls and roof expected to reduce cracking in new 7,000,000 gal. rectangular reservoir constructed on unstable soil of New Orleans. (*No.* 2844 : 12.12).

COMPOSITE CONSTRUCTION

Traeger in Verbund-Bauweise (Composite Beams). *Dr. M. Ros and A. Albrecht. Eidgenössische Materialprüfungs- und Versuchs-Anstalt für Industrie. (Bauwesen und Gewerbe. Zurich, Bericht No.* 149. *March,* 1944.) Report on static and dynamic tests on 25 composite specimens and 5 composite beams. Recommendations for design and practical applications. Structural details. Experience 1935-1944. Bibliography. Very important report on new type of construction not yet introduced in this country. (*No.* 2769 : 17.10).

CONCRETE

Barrel Vault Roofing. (*Pamphlet issued by Twisteel Reinforcement, Alma Street, Smethwick.*) Typical sizes of various types of barrel vault roofs. Types of structures suitable for barrel vault roofing. (*No.* 2299 : 3.1).

Form Linings for Concrete Surfaces. *H. V. Pittman.* (*Engineering News-Record, November* 1, 1945, *pp.* 584-588.) Fabric-covered ¼ in. thick absorptive lining used at Norfolk Dam. Backing absorptive material with non-absorptive lining produced better surfaces at lower cost than use directly on wood sheathing. (*No.* 2319 : 10.1).

Concrete Surface Finishes. (*The Reinforced Concrete Association, Technical Paper No.* 4, 1945, 2*s.* 6*d.*) Variety of surface finishes. Methods of production. (*No.* 2321 : 10.1).

Concrete Design Trend Shaped by Clear Space Needs. *A. J. Boase.* (*Engineering News-Record October* 18, 1945, *pp.* 530-534.) New type of flat slab. Examples of shell structures. (*No.* 2347 : 31.1).

An Investigation of the Strength of Welded Stirrups in Reinforced Concrete Beams. *O. Moretto.* (*Journal of the American Concrete Institute, November,* 1945, *pp.* 141-162.) Results of tests on 44 beams of reinforced concrete with stirrups welded to longitudinal reinforcement. (*No.* 2404 : 28.2).

Prestressed Concrete. Some New Developments. *G. Magnel.* (*Concrete and Constructional Engineering, November, December,* 1945, *January,* 1946, *pp.* 221-232, 249-254, 10-21.) Reasons for prestressing. Comparison between ordinary and prestressed R.C. Arranging reinforcement. Tests. Practical applications. (*No.* 2442 : 21.3).

Selection and Use of Concrete Block. (*Pencil Points, December,* 1945, *pp.* 87-91.) Kinds, sizes, manufacture and uses of concrete blocks. (*No.* 2504 : 18.4).

Festigkeit und Verformung von auf Biegung beanspruchten Eisenbeton-Balken. (Strength and Deformation of Reinforced Concrete Beams Tested in Bending.) *Report No.* 141 *of the Eidgenössische Materialsprufungsund Versuchsanstalt für Industrie, Bauwesen und Gewerbe (Federal Research Institute for Testing Materials for Industry, Building and Craft, Zürich, October,* 1942.) Comparative tests on concrete beams reinforced with Tor-steel, high tensile steel St. 52, and mild steel St. N., for static and dynamic loading. (*No.* 2505 : 18.4).

Parapet Walls. *Fred H. Severud.* (*Architectural Record, February,* 1946, *pp.* 129-130.) Several methods of obviating cracks. (*No.* 2569 : 30.5).

A New System for Precast Concrete Frames. (*The Architects' Journal, March* 21, 1946, *pp.* 233-5.) Rigid frames composed of precast R.C. units. Applicable both in single-storey and multi-storey buildings. (*No.* 2575 : 6.6).

Precast Concrete Treads and Platforms Simplify Stair Construction and Repair. *H. S. Ayres.* (*Engineering News-Record, March* 21, 1946, *p.* 419.) Standard details prepared by the Pittsburgh Public Works Department. (*No.* 2632 : 25.7).

Recommended Dimensions of Reinforced Concrete Structural Members. (*The Reinforced Concrete Association,* 6*d.*) Recommended standard sizes of structural members. (*No.* 2645 : 1.8).

Arch Roof in Prestressed Concrete. (*Concrete and Constructional Engineering, April,* 1946, *pp.* 112-115.) Barrel vault roof in prestressed concrete over garage in India, 420 ft. by 120 ft. Details of construction. (*No.* 2650 : 8.8).

Prestressed Concrete Sleepers. (*Concrete and Constructional Engineering, June,* 1946, *pp.* 168-170.) New method of manufacturing. Highly developed technique, extensive

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mechanization. Applied here to sleepers but could be used for economic production of standardized building units. (*No.* 2674 : 22.8).

Soviet Union Develops New Building Technique. (*Engineering News-Record, May* 16, 1946, *pp.* 797-801.) New method of design. Winter concreting methods. Prefabrication. (*No.* 2675 : 22.8).

The Structural Use of Normal Reinforced Concrete in Buildings. *British Standard Code of Practice Draft for Comment, CP* 1946. (*British Standards Institution,* 3*s.*) Materials, appliances and components. Design considerations. Workmanship. Standard methods of making tests. Not up to date. (*No.* 2726 : 19.9).

Concrete Laid Jointless on a Concrete Base. *Draft for Comment. BS Code of Practice. CP :* 1946. *General Series. Code* 2.12. (*British Standards Institution,* 2*s.*) Materials. Design. Work on site. (*No.* 2753 : 3.10).

Reinforced Concrete for Buildings and Structures Report on Formulæ for Computation of Stresses. (*The Institution of Structural Engineers, London,* 1946, 1*s.*) Standard formulæ for slabs and rectangular beams, T- and L-beams, columns. (*No.* 2760 : 10.10).

Integral Waterproofing of Concrete Structures. *L. E. Hunter.* (*Civil Engineering, July,* 1946, *pp.* 268-272.) Methods of making waterproof concrete. Application to basements in waterlogged ground and in permeable soil, to roofs, walls, rafts and facings. (*No.* 2761 : 10.10).

The Reinforced Concrete Review. Vol. 1, No. 3. (*The Reinforced Concrete Association, June,* 1946, 1*s.* 6*d.*) 64 items on recent publications on concrete and reinforced concrete. 4 good illustrations. See also No. 2489 : 11.4.46. (*No.* 2762 : 10.10).

German Construction Methods. Fabrication and Erection of Pre-cast Concrete. *Report by Joint Intelligence Objective Agency, Washington, D.C., September,* 1945. (*HMSO,* 8*s.* 6*d.*) New types of precast construction. New methods of manufacture. Prestressing. Use of lightweight concrete. Barracks in standardized units. Rigid frames composed of precast members. Architectural treatment of industrial buildings. (*No.* 2782 : 24.10).

Proposed Manual of Standard Practice for Detailing Reinforced Concrete Structures. (*American Concrete Institute, USA,* $2.50.) Standard drawings showing general arrangement and reinforced details for various types of structure. (*No.* 2790 : 31.10).

Vorgespannter Beton. (Prestressed Concrete). *Mitteilungen aus dem Institut fur Baustatik an der Eidgenossischen Technischen Hochschule in Zurich. No.* 15. *Dr. M. Ritter and Dr. P. Lardy.* (*Gebr. Leemann A.G., Zurich,* 12 *Swiss francs.*) History of pre-stressing. Theory and method of design. Results of tests made in Switzerland. Recommendations for use of pre-stressed concrete. Swiss applications. (*No.* 2855 : 19.12).

Bison Information Book. Vol. 1946. (*Concrete, Limited.*) Data on precast hollow reinforced concrete floors. (*No.* 2868 : 26.12).

Reinforced Concrete Street Lighting Columns. *British Standard* 1308 : 1946. (*British Standards Institution,* 2*s.*) Materials, fittings and tests. (*No.* 2869 : 26.12).

CONSTRUCTION : GENERAL

Modern Methods of House Construction. *Paper read by John W. Laing to the Chartered Surveyors' Institution, December* 3, 1945, (*The Builder, December* 14, 1945, *pp.* 481-484, *and other journals.*) Prefabricated houses dearer than houses built on site. Standard may be higher. Importance of thermal insulation. Comparative value of thermal insulation of various types of walls. Comparison of forms of heating. Alternative methods of construction. (*No.* 2433 : 14.3).

To-morrow's Houses. *Edited by John Madge.* (*Pilot Press,* 18*s.,* 330 *pp.*) Contributions by various authorities to convey " a sound picture of what changes are now practicable and necessary to advancement of house design." (*No.* 2543 : 9.5).

Efficiency in Structure Invokes the Principle of Continuity. *Fred N. Severud.* (*Architectural Record, January,* 1946, *pp.* 81-88.) Modern trends in structural arrangement of multi-storey framed buildings in steel and reinforced concrete. (*No.* 2601 : 27.6).

Prefabrication in Building. *Richard Sheppard.* (*The Architectural Press,* 1946. 18*s.* 6*d.*) Survey of prefabrication. Representative types in steel and non-ferrous metals, timber and concrete. 163 illustrations. (*No.* 2631 : 25.7).

Prefabrication. (*The Architectural Forum, April,* 1946, *pp.* 137-142.) Advantages and difficulties of prefabrication. Industry rapidly developing into big business status. Lines along which successful development can be achieved. (*No.* 2651 : 8.8).

Carpentry. *W. B. McKay.* (*Building Craft Series. Longmans, Green & Co.,* 7*s.* 6*d.*) Handbook for students attending craft courses at technical colleges and training centres. 158 drawings. (*No.* 2667 : 15.8).

Joinery. *W. B. McKay.* (*Building Craft Series. Longmans, Green & Co.,* 7*s.* 6*d.*) Doors. Windows. Staircases. Architraves. Floor finishes. With 155 drawings. (*No.* 2668 : 15.8).

Trends in Prefabrication. *Lecture by Colonel N. Tweddell at the Health Centre of the Royal Sanitary Institute at Blackpool.* (*The Builder, June* 14, 1946, *pp.* 593-4.) Prefabrication of permanent houses. Variety of materials used in walls, floors and roofs. Standards of performance. Prefabricated and semi-fabricated buildings and prefabricated components. Site erection and speed. Prefabrication 10 to 15 per cent. more expensive than traditional building. (*No.* 2677 : 22.8).

Materials and Methods of Construction for Housing. *Lecture by R. Fitzmaurice at the AA, May* 26, 1946. (*The Architects' Journal, June* 27, 1946, *p.* 494, *and other journals.*) Effect of scarcity of materials on development. Factors influencing design. Dimensional tolerances. Production limitations. Transport. Importance of testing and inspection. (*No.* 2678 : 22.8).

The German Building Industry. *BIOS Final Report No.* 575. *Item No.* 12. (*HMSO,* 12*s.* 6*d.*) General report on developments in Germany before and during war. Recommendations for further investigations. (*No.* 2781 : 24.10).

A Report on Structural Engineering in Germany. *John Mason.* (*The Structural Engineer, June,* 1944, *pp.* 297-334.) Reichsautobahn bridges. Prestressed concrete. Shell concrete. Precast concrete construction. Steelwork. 34 illustrations. (*No.* 2783 : 24.10).

FIRE ESCAPE AND PROTECTION

Requirements as to Means of Escape in Case of Fire : Factories Act, 1937. *B. G. Phillips.* (*Municipal Engineering, March* 14, 1946, *p.* 154.) Powers of Local Authorities explained. Diversity in existing by-laws owing to lack of accepted standards of requirements. Suggestions for uniform code. (*No.* 2533 : 2.5).

Fire-Check Flush Doors (30 Minute Type). *British Standard* 459, *Part* 3: 1946. (*British Standards Institution,* 2*s.*) Economical type flush door giving 30 minute fire resistance. Sizes, types of timber, construction and door frame requirements. (*No.* 2831 : 5.12).

Hotel Fires. (*The Architectural Forum, July,* 1946, *p.* 14.) Fireproof construction proves no guarantee against big loss of life. (*No.* 2871 : 26.12).

FOUNDATIONS

Some Foundation Troubles with Small Houses. *Paper read by L. F. Cooling at Institute of Sanitary Engineers, December* 20, 1945. (*The Architect and Building News, January* 25, 1946, *pp.* 52-55.) Cracking of structure due to uneven settlements. Soil movements due to load or causes other than structural loads. Conditions in clay soils. (*No.* 2474 : 4.4).

Piles and Pile Foundations. *R. D. Chellis.* (*Engineering News-Record, May* 16, 30, *June* 13, 1946, *pp.* 774-8, 863-5, 914-9.) Four ways in which piles may act. Group action. Criticism of pile formulæ. Reduction of efficiency of driving. Excavation and fill. Causes of settlement. Effect on adjacent structures. Application of the Hiley formula. Rules for determining safe working loads from result of pile tests. (*No.* 2676 : 22.8).

LIGHTNING PROTECTION

Lightning Protection. *British Standard Code of Practice. Draft for Comment. Second Proof,* 1946. (*British Standards Institution,* 2*s.*) Supersedes CPI : 1943 issued before general form of these Codes decided upon. Largely similar in content though different in arrangement. Valuable guide. (*No.* 2633 : 25.7).

LOAD-BEARING WALLS : DESIGN

Structural Recommendations for Load-Bearing Walls. *Draft for Comment. BS Code of Practice. CP :* 1946. *General Series. Codes* 1.24, 1.241, 1.242, 1.243. (*British Standards Institution,* 2*s.*) Materials and design considerations for brick and cast *in-situ* concrete walls. (*No.* 2752 : 3.10).

MISCELLANEOUS

Guaranteed Minimum Reckoners for the Building and Civil Engineering Contracting Industries. *BS* 1151, *Part* 2 : 1945. (*British Standards Institution,* 1*s.*) Facilitates calculation of guaranteed minimum for men whose normal working hours are less than normal working hours laid down in Working Rule Agreements. (*No.* 2317 : 10.1).

London Master Builders Assocation Handbook, 1945. (*LMBA,* 47, *Bedford Square, W.C.*1, 7*s.* 6*d.*) Up-to-date and useful reference books for builders. Members' addresses, wages rate agreements, etc. Addresses of Factory Inspectors, District Surveyors, Metropolitan Water Board Engineers, etc. Water Board changes and regulations. Miscellaneous builders' data and tables. (*No.* 2519 : 25.4).

Perspective Drawing Without Vanishing Points. A New Technique. *Claude A. Claremont.* (*Architectural Association Journal, February.* 1946.) New technique which eliminates old trouble of vanishing points falling outside limits of drawing board. Very simple. (*No.* 2520 : 25.4).

Archæology and the Engineer. *Graham Webster.* (*Journal of the Institution of Municipal and County Engineers, March,* 1946, *p.* 315.) Some principles for archæological search, illustrated by discoveries during works at Lincoln. Ancient Monuments Act, 1931. (*No.* 2521 : 25.4).

MODULAR DESIGN

Cutting Costs with Modular Design. *A. Gordon Lorimer.* (*Engineering News-Record, October* 18, 1945, *pp.* 114-119.) Need for standardizing dimensions of building units. 4 in. module. (*No.* 2618 : 11.7).

ROAD CONSTRUCTION

Limestone Roads. *P. V. Valton.* (*Chapman & Hall,* 1946, 10*s.* 6*d.*) Geological notes. Properties of limestone. Essential characteristics of road stone. Different types of surfacing. (*No.* 2765 : 10.10).

SOIL MECHANICS

Excavation in Difficult Ground. *R. Glossop and H. G. Golder.* (*Journal of the Institution of Sanitary Engineers, April,* 1946, *Vol. XLV, p.* 301.) Methods of soil stabilization for excavation in waterlogged and unstable ground. Trench excavation for deep sewers. Stability of retaining walls. Methods of estimating earth pressures. Examples of application. (*No.* 2608 : 4.7).

Problems of Soil Stabilization and the Scientific Control of Concrete for Roadworks. *H. Donovan Gauntlett.* (*Journal of the Institution of Municipal and County Engineers, May* 7, 1946, *Vol. LXXII, p.* 385.) Experience of site control measures designed to obtain uniform high-quality concrete in housing scheme. Methods of testing used. Problem of obtaining uniform supplies of aggregate. Reasons for choice of central mixing plant, and its layout. Optimum use of man-power. Site control laboratory described. Extract from Specification used. (*No.* 2610 : 4.7).

A Study of the Growth of Grass in " Surface-Stabilizied Soil." *Martin A. F. Sutton, F.L.S., in collaboration with T. F. N. Alexander and F. C. West, B.Sc.* (*Sutton and Sons, Ltd., Reading,* 3*s.* 6*d.*) Surface stabilization of grass areas by bituminous stabilizers. Experiments described. Value in sports areas, for draw-in spaces on grass verged roads, for grass aerodromes. (*No.* 2792 : 31.10).

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Developments in Welded Steel Construction. *La Motte Grover.* (*Engineering News-Record, October* 18, 1945, *pp.* 536-538.) Greater use of structural welding inevitable. (*No.* 2383 : 14.2).

Technical and Commercial Developments in Light Gauge Structural Steel. *Milton Male. Address at Annual Convention American Institute of Steel Construction, November,* 1944. (*American Institute of Steel Construction,* 101, *Park Avenue, New York.*) Pamphlet covering much the same ground as No. 2346 : 31.1.46. Well illustrated. (*No.* 2488 : 11.4).

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Wartime Advances in Welding. (*Architectural Record, July,* 1946, *pp.* 111-115.) Advantages of welding. Improved design and technique. Better equipment and electrodes. Higher inspection standards. Basic principles of design. (*No.* 2758 : 10.10).

Arc Welded Structural Steelwork. I. Stanchion Bases, Caps and Joints. (*British Welding Research Association, March,* 1946, 9*d.*) Recommendations for the design, fabrication and erection of welded stanchion details. (*No.* 2759 : 10.10).

Space Frame. *Designed by O. Safir.* (*The Architects' Journal, October* 24, 1946, *pp.* 299-301.) System of north light roof construction. (*No.* 2854 : 19.12).

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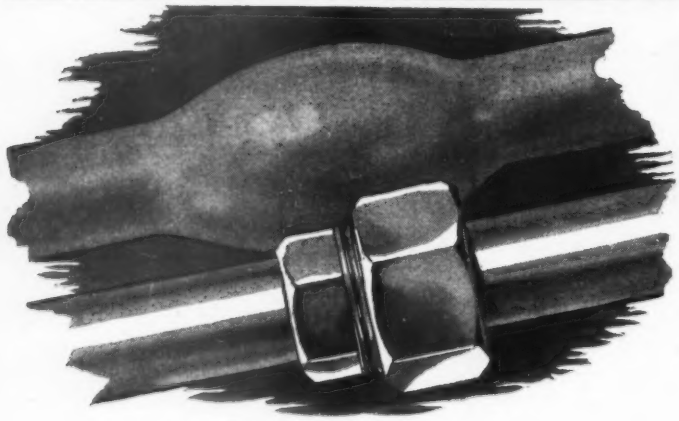
Unit Laminated Arches and Beams. (*Pamphlet issued by Unit Structures, Peshtigo, Wisconsin.*) Data for structures in glued laminated timber. (*No.* 2396 : 21.2).

Wartime Innovations in Timber Design. (*Engineering News-Record, October* 18, 1945, *pp.* 514-517.) Increased permissible stresses used for wartime construction recommended for peacetime. Provision for stress variations for combinations of temporary and permanent loads. (*No.* 2397 : 21.2).

Structural Uses of Plywood. *Paper to the Design and Industries Association by A. H. Scroggs.* (*The Architects' Journal, January* 10, 1946, *pp.* 34-36.) Materials, manufacture, grading. Principles of design of plywood structures. Application in aircraft and building. (*No.* 2398 : 21.2).

Adventures in Lumber. *David Pleydell-Bouverie.* (*The Architects' Journal, February* 21, 1946, *pp.* 159-163.) Short report on war-time development of timber structures in USA. (*No.* 2587 : 13.6).

Wood Structural Research and Development. *Report prepared by Field Information Agency, Technical United States Group Control Council for Germany. Final Report No.* 225. *October,* 1945. (*HMSO,* 8*s.* 6*d.*) Methods of manufacturing nailed girders, laminated wood, plywood and their application in structural engineering, building and aircraft construction. Comprehensive bibliography. Abstracts from reports on use of timber. Surface treatment of glued timber. (See also No. 1118 : 15.4.43.) (*No.* 2784 : 24.10).



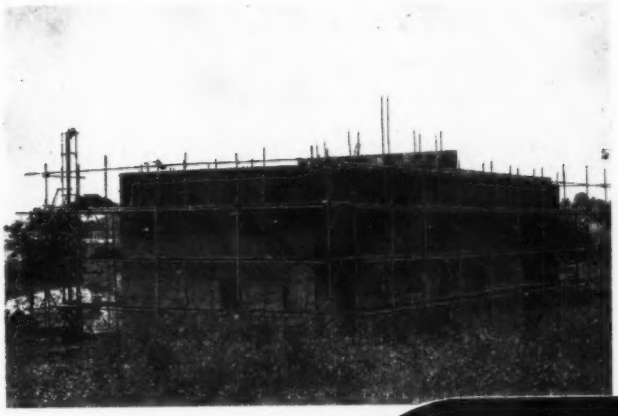
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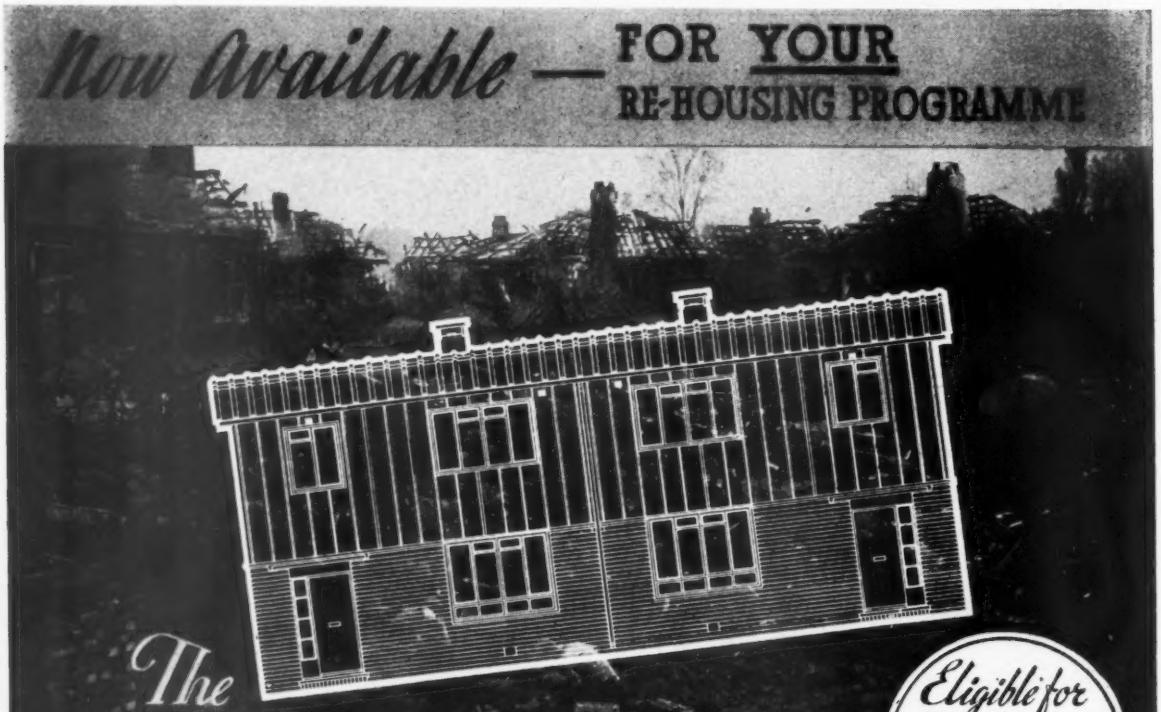
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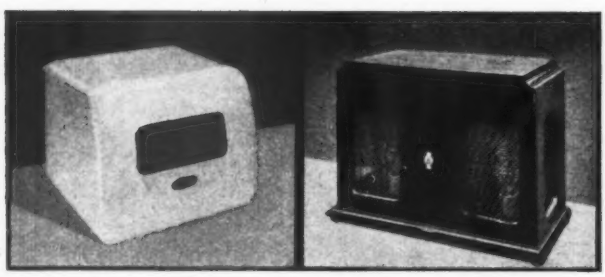
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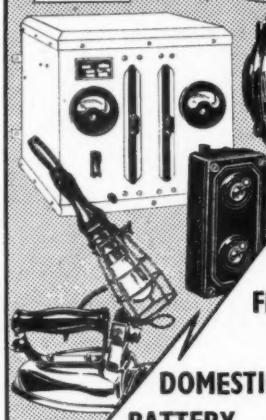
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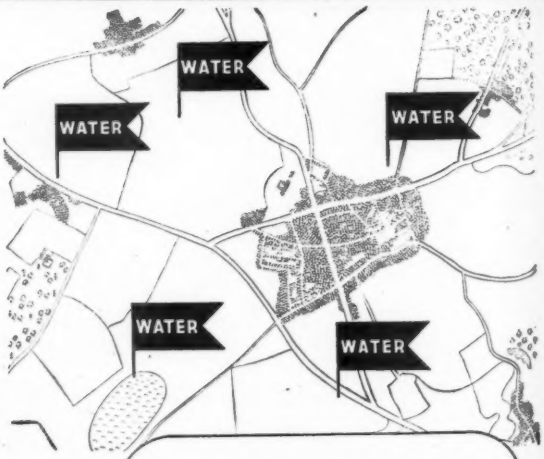
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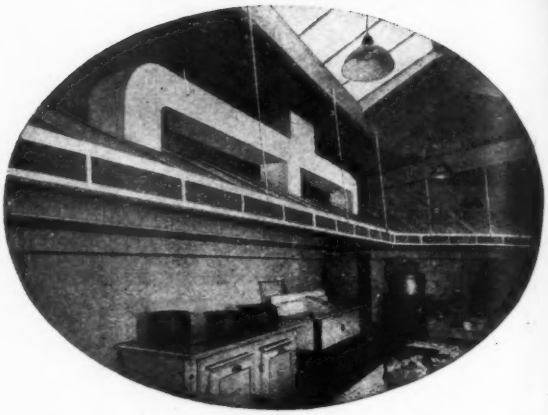
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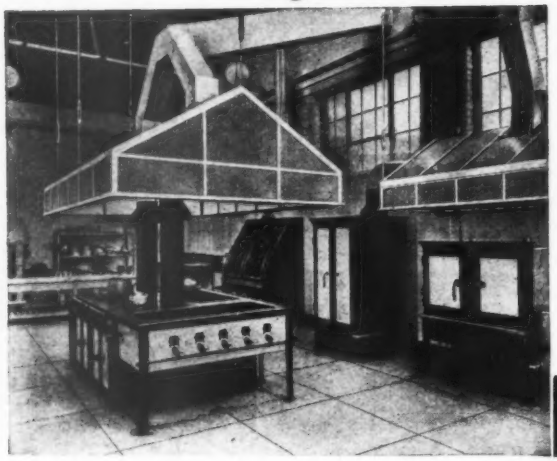
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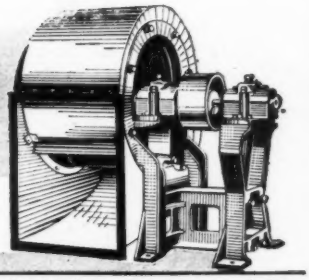
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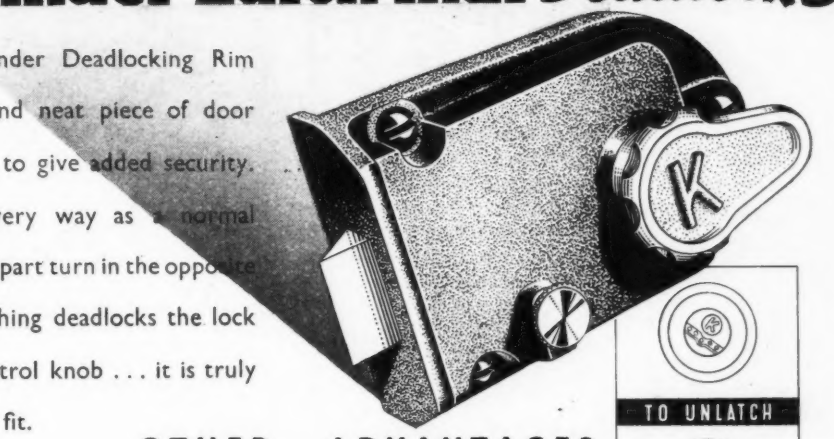
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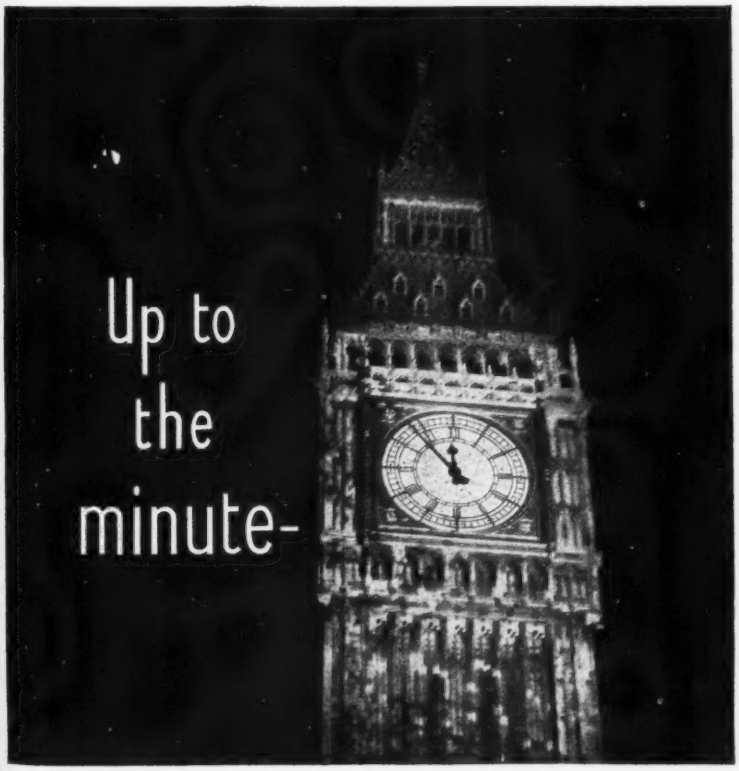
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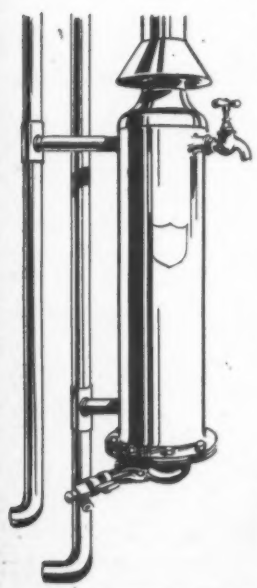
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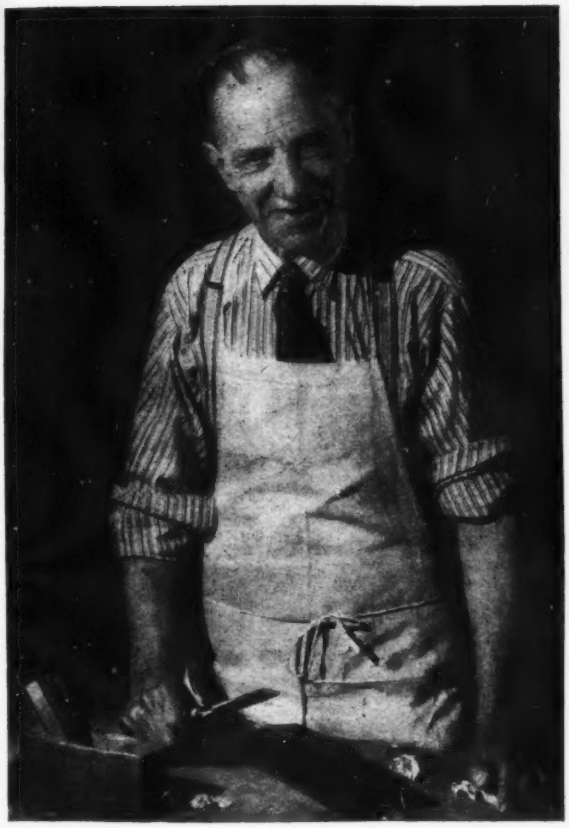
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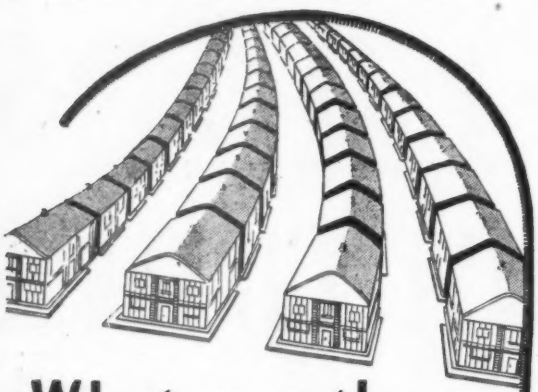
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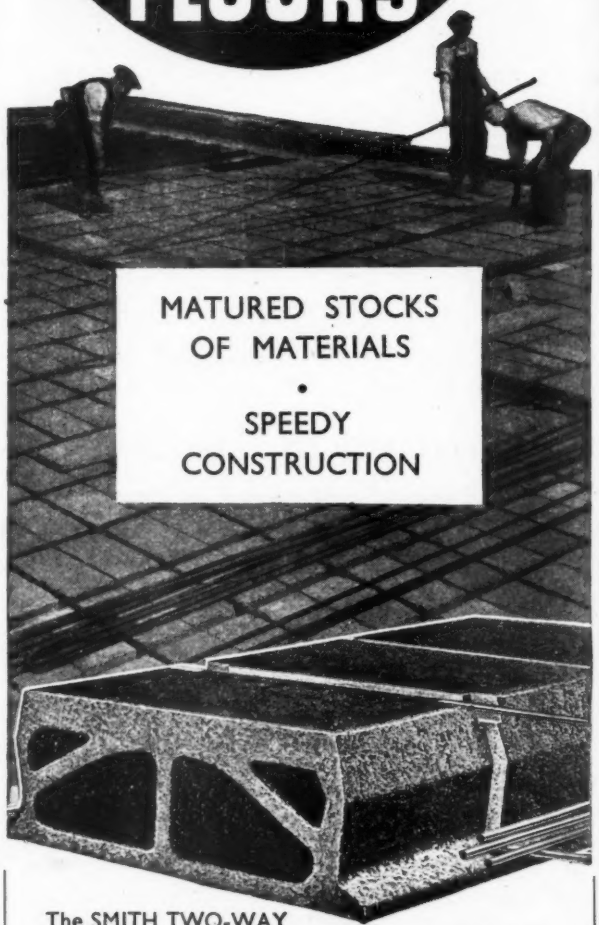
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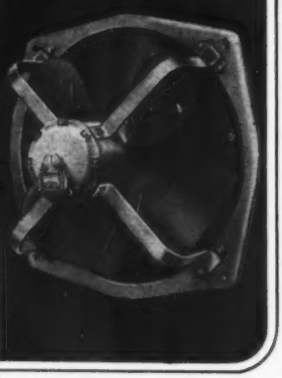
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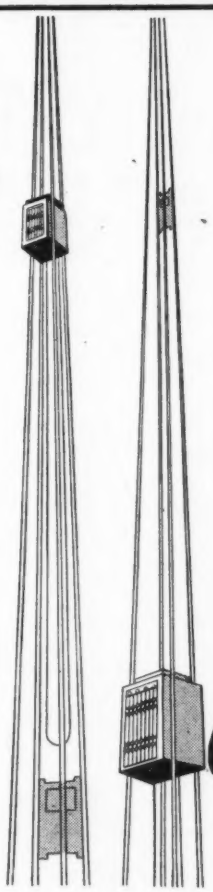
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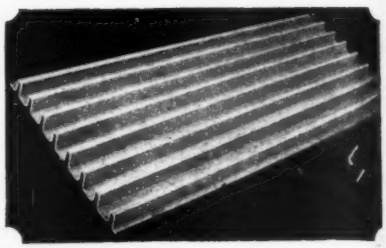
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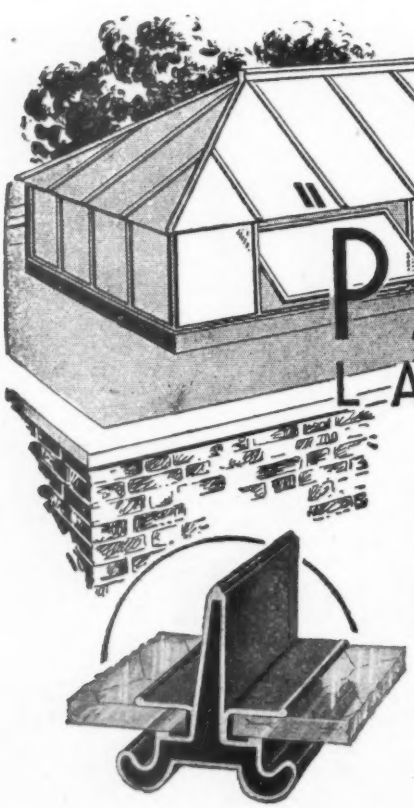


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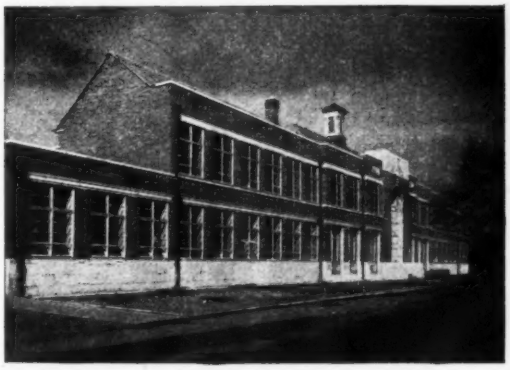
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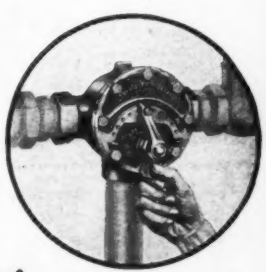

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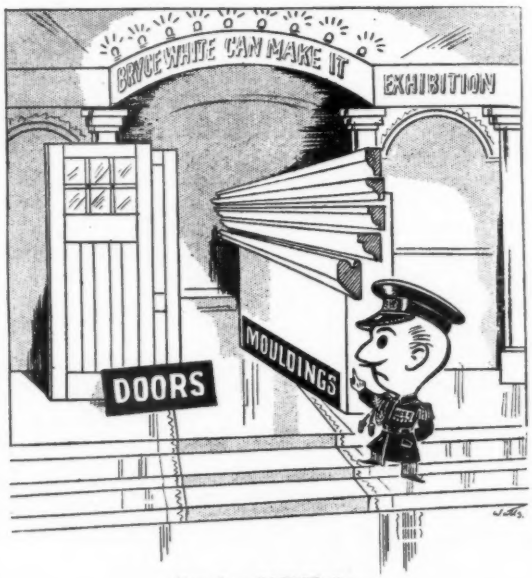
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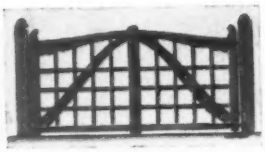
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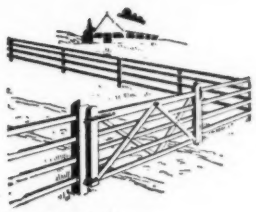
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THE INCORPORATED ASSOCIATION OF ARCHITECTS AND SURVEYORS maintains a register of qualified architects and surveyors (including assistants) requiring posts, and invites applications from public authorities and private practitioners having staff vacancies. ADDRESS: 75, EATON PLACE, LONDON, S.W.1. TEL. SLOANE 5615. 991

LONDON COUNTY COUNCIL.

Applications are invited for the following positions:—

(1) QUANTITY SURVEYORS AND ASSISTANTS (SENIOR AND JUNIOR). Required for:

(*a*) "Taking-off" quantities, measuring, and adjusting variations under building contracts and preparing estimates.

(*b*) Preparing estimates and measuring repairs and minor works under schedule of prices (experience of London County Council, War Department or Office of Works Schedules).

(*c*) Working up, etc., in connection with domestic buildings and general working up (junior).

(*d*) Measurement of roads and sewers and housing work on cottage estates, preparation of interim and final bills on Schedules.

(2) ARCHITECTS, BUILDING SURVEYORS, TECHNICAL ASSISTANTS (ARCHITECTURAL), AND JUNIOR DRAWING OFFICE ASSISTANTS. Required for:

(*a*) Work in connection with the design and development of housing schemes for cottage estates and block dwellings (experience in domestic architecture preferred).

(*b*) Similar work in connection with schools and hospitals.

(*c*) The preparation of estimates and specifications for works of cleaning and painting, repairs and minor alterations at schools and hospitals.

(*d*) Assistants to district surveyors. A knowledge of the London Building Acts and by-laws is necessary for these positions.

(*e*) Junior drawing office assistants for general drawing office work. Should be able to finish plans from rough drawings, take dimensions and make sketches. Pay, according to age and experience, up to 65s. a week, plus cost-of-living addition.

(3) HEATING ENGINEERS AND HEATING AND VENTILATING ASSISTANTS. Good technical education required. Applicants must be experienced in the design of, and preparation of drawings, specifications and estimates for modern hot water heating, ventilating and hot water supply schemes.

Except as otherwise shown, salaries for the above positions will be determined by qualifications and experience up to a maximum of £420 a year, together with cost-of-living additions up to £90 a year, according to basic salary. Salary up to £500 for certain positions of heating engineer and building surveyor. Successful candidates will be engaged on a temporary basis, but will be eligible for appointment, according to merits, for permanent appointment on the occurrence of vacancies. Temporary staff are required to contribute to the Council's Superannuation and Provident Fund.

Ex-Service candidates with experience prior to their war service will be specially considered.

Application forms may be obtained from the Clerk of the Council, County Hall, Westminster Bridge, London, S.E.1, enclosing stamped addressed foolscap envelope.

Canvassing disqualifies. 947

LONDON COUNTY COUNCIL.
CLERKS OF WORKS.

Applications are invited for positions of Clerks of Works (Class II), in the Architect's Department, to supervise constructional, maintenance, and repair works at the Council's schools, hospitals, and other buildings. There may also be shortly a few Class I positions. Rates of pay (according to qualifications and experience) are: Class I, £360-£400 a year (basic), plus cost-of-living addition, at present £78-£90 a year; Class II, up to 135s. a week, plus cost-of-living addition, at present, of 30s. a week.

Successful candidates, under 55 years of age, will be subject to the Council's Superannuation and Provident Fund, but will be temporary in the first instance.

Other things being equal, preference will be given to persons registered under the Disabled Persons' (Employment) Act, 1944, and ex-Service men will also receive special consideration.

Applications (enclosing stamped addressed envelope) to be made to the Architect to the Council, County Hall, Westminster Bridge, S.E.1, for form of application.

Canvassing disqualifies. 965

LONDON COUNTY COUNCIL.
VACANCIES FOR PLANNING STAFF IN THE ARCHITECT'S DEPARTMENT FOR WORK ON THE COUNTY OF LONDON PLAN.

Applications are invited for a number of positions in the following grades:—

PLANNING OFFICER (Grade III). Up to £500 a year (basic).

TECHNICAL ASSISTANT. Up to £420 a year (basic).

Commencing rate of pay will be according to qualifications and experience. Cost-of-living addition, at present £78 to £90 a year (men), and £63 to £84 (women), are payable in addition.

There will be opportunities for competing, on merit, in due course for permanent appointment and for positions in the higher grades on the occurrence of vacancies. Successful candidates will be subject to the Council's Superannuation and Provident Fund.

The planning work involved includes assistance in the detailed development of Reconstruction Area schemes, and the preparation of revised zoning plans.

A knowledge of current town planning legislation is desirable in all cases, and candidates for Grade III positions should possess architectural or surveying or town planning qualifications.

Other things being equal, preference will be given to candidates registered under the Disabled Persons (Employment) Act, 1944, and ex-Service men and women will also receive special consideration.

Application should be made to the Architect to the Council, County Hall, Westminster Bridge, S.E.1, for form of application (enclosing stamped addressed envelope), returnable not later than ten days from this date.

Canvassing disqualifies. 983

BATTERSEA BOROUGH COUNCIL.
APPOINTMENT OF ARCHITECTURAL ASSISTANTS.

Applications are invited for the permanent appointment of two Architectural Assistants, in the Borough Engineer and Surveyor's Department, at a salary in accordance with A.P.T., Grades II to III, of the National Scale, *viz.*, £360-£435, plus £20 London weighting and cost-of-living bonus (at present £59 16s. per annum). Candidates must have had an architectural training, and be capable of preparing working drawings and details.

These appointments are subject to the Local Government Superannuation Act, 1937, and will be terminable by one month's notice on either side. The successful candidates will be required to pass a medical examination. Applications, on forms which may be obtained from the Borough Engineer and Surveyor, Town Hall, Battersea, S.W.11, and accompanied by copies of three recent testimonials, should be delivered to the undersigned not later than noon on Monday, the 27th January, 1947.

R. G. BERRY,
Town Clerk.

Town Hall, Battersea, S.W.11.
December, 1946. 644

Amended Advertisement.

COUNTY BOROUGH OF SOUTHPORT.
APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the above appointment, on the permanent staff of the Borough Engineer's Department, at a salary in accordance with Grade I of the A.P. & T. Division of the National Joint Council Scale of Salaries (£330-£375, by annual increments of £15), plus cost-of-living bonus (at present £59 19s.). The commencing salary within the grade will be determined according to the candidate's qualifications and experience.

Applicants should have passed the intermediate examination of the Royal Institute of British Architects, and must have had considerable experience in architectural work generally, and in the preparation of plans, estimates, and specifications.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination.

The appointment will be subject to one month's notice on either side.

Applications, endorsed "Architectural Assistant," stating age, with full details of qualifications and experience, and accompanied by copies of three recent testimonials, must be delivered to the undersigned not later than Thursday, 30th January, 1947.

R. EDGAR PERRINS,
Town Clerk.

Town Hall, Southport.
2nd January, 1947. 668

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DEPARTMENT OF ARCHITECTURE.

Applications are invited for the appointment of a full-time LECTURER AND STUDIO INSTRUCTOR in Architectural Design and Construction.

Candidates should hold the A.R.I.B.A. or equivalent qualification. Salary in accordance with the Burnham Scale.

Application forms may be obtained from the Chief Education Office, 18, Wellington Square, Hastings, and should be returned, with copies of two recent testimonials, by 31st January. 664

CITY OF ST. ALBANS.
CITY ENGINEER AND SURVEYOR'S DEPARTMENT

TEMPORARY ARCHITECTURAL ASSISTANT.

Applications are invited for the temporary post of Architectural Assistant, in the above Department, at a salary of £400 per annum, plus current cost-of-living bonus (£59 16s. per annum).

Applicants must have had architectural experience, and have had experience in the preparation of plans, working drawings, specifications, and layouts of modern municipal estates, including surveying and levelling.

It is anticipated that the post will last for at least two years, subject to satisfactory services.

The appointment is subject to one month's notice on either side.

Applications, in writing, stating age and experience, together with copies of two recent testimonials (non-returnable), must be received by the undersigned not later than the 31st January, 1947.

S. H. E. CRANE,
Town Clerk.

Town Clerk's Office, 38, St. Peter's Street, St. Albans. 697

SOMERSET COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments, in the above-named Department.

The scales of salaries given below are interim scales for the posts, pending regrading of existing staff into the salary scales of the National Joint Council for Local Authorities' Administrative, Professional and Technical Services, now under consideration:—

CLASS I ARCHITECTURAL ASSISTANT. £430 by £15 to £475.

Applicants must be Associates of the Royal Institute of British Architects, or hold equivalent professional qualifications, with good experience in Architectural design.

CLASS IIa ARCHITECTURAL ASSISTANT. £360 by £15 to £415.

ARCHITECTURAL ASSISTANT—IMPROVER. £130 by £10 to £230.

CLASS II QUANTITY SURVEYOR. £310 by £15 to £415.

JUNIOR ASSISTANT QUANTITY SURVEYOR. £130 by £10 to £230.

ENGINEERING ASSISTANT. £360 by £15 to £415.

Applicants should have had experience in the design and calculation of Heating, Hot Water and Ventilating Installations, and preferably some knowledge of Electrical Installations. Candidates should also have experience in the preparation of reports and the supervision of works.

The commencing salaries in each of the above-mentioned posts will be determined by experience and qualifications; cost-of-living bonus in accordance with the Council's scale (at present £59 16s. per annum at 21 years of age or over) will also be paid.

All the above-mentioned appointments will be subject to the rules and regulations of the County Council from time to time in force, the provisions of the Local Government Superannuation Act, 1937, and to the passing satisfactorily of a medical examination by the Council's Medical Officer of Health.

Applications, stating age, training, experience and qualifications, together with copies of three recent testimonials, should be sent to the undersigned not later than 27th January, 1947.

R. O. HARRIS, F.R.I.B.A.,
County Architect.

Park Street, Taunton, Somerset. 686

BOROUGH OF ILFORD.
BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.
APPOINTMENT OF BUILDING SUPERINTENDENT.

Applications are invited for the appointment of a Building Superintendent, on the permanent staff of the Borough Engineer's Department.

The salary will be in accordance with Grade VII of the National Scales for Administrative, Professional and Technical Grades, *viz.*, £575 per annum, rising to £650 per annum, plus £59 16s. cost-of-living bonus, plus £20 London weighting.

Applicants must have had considerable experience of management and organisation of all sections of the Building trades, with a detailed knowledge of building construction, costing of works and purchasing of building materials, and capable of undertaking the erection of houses by direct labour.

Applications, stating age, present and previous positions, training and qualifications, and concise particulars of experience, accompanied by copies of three recent testimonials, should be forwarded in a sealed envelope endorsed "Building Superintendent," to reach the undersigned not later than 27th January, 1947.

The appointment, which will be terminable by one month's notice on either side, is subject to the provisions of the Local Government Officers' Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination.

The conditions of service will be those of the National Joint Council for Local Authorities' Administrative, Professional, Technical, and Clerical Services.

Canvassing, either directly or indirectly, will be a disqualification.

K. F. B. NICHOLLS,
Town Clerk.

Town Hall, Ilford.
January, 1947. 689

CITY OF LEICESTER.
APPOINTMENT OF CITY ARCHITECT.

Applications are invited for the permanent appointment of a City Architect, at the salary of £1,500 per annum, rising to £1,750 per annum by annual increments of £50, subject to satisfactory service, plus cost-of-living bonus, at present £59 16s. per annum.

The appointment, which will be terminable by three months' notice on either side, is subject to the Local Government Superannuation Act, 1937, and the successful applicant will be required to pass a medical examination.

Particulars of appointment and duties may be obtained from the undersigned, to whom applications, enclosed in a sealed envelope endorsed "City Architect," must be delivered not later than the 14th February, 1947.

L. McEVOY,
Town Clerk.

Town Hall, Leicester.
15th January, 1947. 681

SPALDING RURAL DISTRICT COUNCIL.
ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of a full-time TECHNICAL ASSISTANT, in the Architect's Department, at a commencing salary of £345 per annum, plus cost-of-living bonus (at present £59 16s.), rising on 1st April, 1947, to £390 per annum, plus bonus, when the appointment and salary will be in accordance with Grade III of the A.P.T. Division of the National Joint Council Scale, rising to a maximum of £435, plus bonus.

Candidates should have a sound and practical knowledge of architectural and quantity surveying work. The main duties will be to prepare Bills of Quantities, Estimates, Valuations and settlement of Accounts in connection with the Council's Housing Schemes, and generally to work under the direction of the Council's Architect and Building Surveyor.

The appointment will be subject to the Local Government Superannuation Act, 1937.

Applications, stating age, qualifications and experience, and earliest date on which duties could be commenced if appointed, together with copies of two recent testimonials, must reach the undersigned not later than 30th January, 1947.

L. FENNELL,
Clerk to the Council.

The Crescent, Spalding, Lincs. 682

CITY OF NOTTINGHAM.
CITY ENGINEER'S DEPARTMENT.

Applications are invited for the post of Chief Architectural Assistant, at a salary of £1,000 per annum, plus cost-of-living bonus, of at present £59 16s. per annum.

Applications will be considered only from persons with first-class qualifications, who have had considerable experience in the design and construction of large Municipal Educational and Hospital Buildings, and who are Fellows or Associates R.I.B.A.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, and to the National Joint Council's Scheme of Conditions of Service, and the successful candidate will be required to pass a medical examination.

Applications, stating age and full details of experience and qualifications, together with copies of testimonials, should be received by Mr. R. M. Finch, O.B.E., M.I.C.E., City Engineer and Surveyor, Guildhall, Nottingham, not later than Friday, 31st January, 1947.

J. E. RICHARDS,
Town Clerk.

Guildhall, Nottingham.
1st January, 1947. 683

CIVIL SERVICE COMMISSION.

The Civil Service Commissioners invite applications from qualified ARCHITECTS and QUANTITY SURVEYORS, aged between 30 and 50, for vacancies in the Admiralty and Ministry of Health, Department of Scientific and Industrial Research, Department of Health for Scotland, and Department of Agriculture for Scotland. For both Architects and Quantity Surveyors there are vacancies in the Main Grade (salary scale in London, £650×£25—£900 for men, or £550×£25—£750 for women), and in the Senior Grade (salary scale in London, £950×£30—£1,150 for men, or £800×£30—£975 for women); in the provinces salaries are somewhat lower. The vacancies in Scotland are in the Main Grade, with the exception of two for Senior Architects. For posts as Architects, candidates must, as a minimum qualification, be Registered Architects by examination; for Quantity Surveyors the minimum qualification is Professional Associateship of the Royal Institution of Chartered Surveyors (Quantities Section).

Further particulars and application forms may be obtained by writing to the Secretary, Civil Service Commission, 6, Burlington Gardens, London, W.1, quoting No. 1771, or from the Chief Officer, Civil Service Commission, at the following addresses:—(India), 10, Underhill Lane, Delhi; (Egypt), 8, Sharia Tolumbat, Garden City, Cairo; (Italy), c/o G.H.Q., C.M.F.; (Germany), c/o 2nd Echelon, G.H.Q., B.A.O.R. Completed application forms must reach the Civil Service Commission by 28th February, 1947 (for candidates in the United Kingdom), or 31st March, 1947 (for candidates overseas).

THURROCK URBAN DISTRICT COUNCIL.
SURVEYOR'S DEPARTMENT.

Applications are invited for the following appointments:—

(*a*) CHIEF PLANNING ASSISTANT, at a salary in Grade V of the A.P.T. Division of the National Scale of Salaries, *viz.*, £460 per annum by £15 to £510 per annum, plus bonus, with experience in the preparation and administration of planning schemes, interim development and ribbon developments control, and in planning generally.

(*b*) ARCHITECTURAL ASSISTANT, at a salary in Grade V of the A.P.T. Division of the National Scale of Salaries, *viz.*, £460 per annum by £15 to £510 per annum, plus bonus, with experience in the preparation of drawings, specifications, and estimates in connection with building and architectural work, usually undertaken by a Local Authority, and in the organisation of housing construction on a large scale.

(*c*) ENGINEERING ASSISTANT, at a salary in Grade I of the A.P.T. Division of the National Scale of Salaries, *viz.*, £330 per annum by £15 to £375 per annum, plus bonus, with experience in the preparation of plans, specifications and quantities for Civil Engineering Works.

The bonus for each appointment at present amounts to £59 16s. per annum.

The qualifications appropriate to the appointments are for:—

(*a*) Associate Membership examination of the Town Planning Institute.

(*b*) Associate examination of the Royal Institute of British Architects.

(*c*) Testamur, or part thereof, of the Institution of Municipal Engineers.

The appointments are subject to the provision of the Local Government Superannuation Act, 1937. Applications, stating age, qualifications and experience, with copies of not more than three testimonials, appropriately endorsed, should reach the undersigned not later than first post on Friday, 31st January, 1947.

Canvassing will disqualify. Applicants must disclose in writing any relationship to any member or senior officer of the Council.

A. E. POOLE,
Clerk of the Council.

Council Offices, Whitehall Lane, Grays.
9th January, 1947. 715

BOROUGH OF ST. MARYLEBONE.

Appointment of:—

(*a*) HOUSING DIRECTOR.

(*b*) MANAGERIAL AND WELFARE OFFICER.

Applications are invited for the following two positions:—

(*a*) HOUSING DIRECTOR. The Director will be a Chief Officer, and be responsible for the work of the Housing Department. The work includes the selection of sites for permanent housing and the survey of houses for requisitioning and adaptation; responsibility for work of adaptation to requisitioned premises; execution of war damage repairs by contract; receipt and grading of housing applications; lettings; rent assessments; collection of rents (subject to financial supervision by Borough Treasurer); management of estates; welfare of tenants; and other housing activities of the Council. The Housing Director will also be required to ensure maximum progress in the carrying out of present and future housing schemes executed under the supervision of outside architects or otherwise. The primary qualification for the position is a wide knowledge and experience of housing management and good administrative ability. Applicants must be fully conversant with the provisions of the Housing Acts and other legislation affecting all aspects of municipal houses. A professional qualifications will be an advantage. Applicants must not be more than 45 years of age. Salary £1,250 per annum, plus cost-of-living bonus (at present £59 16s. per annum).

(*b*) MANAGERIAL AND WELFARE OFFICER (FEMALE). The person appointed will act under the direction of the Housing Director, and her duties will include investigation of and reporting on applications for housing accommodation; advising and assisting Council's tenants; general welfare work in connection with the Council's housing activities; and collecting rents. Applicants should have had training and experience in work of a similar or related kind, and should be a member of the Society of Women Housing Managers or hold a Diploma in Social Science, a Health Visitor's Certificate, the Certificate of the Sanitary Inspectors' Examining Joint Board, or some equivalent qualification, and must not be more than 40 years of age. The commencing basic salary for the position is £360 per annum, rising by annual increments of £15 to a maximum of £405 per annum, in accordance with Grade II of the Administrative, Professional and Technical Division of the National Scales, plus £20 per annum London weighting and cost-of-living bonus (at present £48 2s. per annum).

Both the foregoing appointments will be subject to satisfactory medical examination by the Council's Medical Adviser, to proof of age by production of birth certificate, to the National Scheme of Conditions of Service as adopted by the Council, and to compliance with the provisions of the St. Marylebone Borough Council (Superannuation) Acts, 1908-1936, and any modifications thereof.

Applications (standard forms are not being issued), stating age, experience in housing work, present position and salary, qualifications, etc., accompanied by copies of three recent testimonials, must be delivered to the undersigned in sealed envelopes endorsed "Housing Director" or "Managerial and Welfare Officer," not later than 12 noon on Monday, the 3rd February, 1947.

The Council's Standing Orders provide that canvassing shall disqualify an applicant.

T. J. WILSON,
Town Clerk.

Town Clerk's Office, St. Marylebone, W.1. 709

WEST SUFFOLK COUNTY COUNCIL.

Applications are invited for the undermentioned appointments, in the County Architect's Department. Salaries as indicated in accordance with the National Joint Council salary scales, plus cost-of-living bonus (at present £60 per annum): position on scales according to qualifications, *viz.*:—

(*a*) ASSISTANT ARCHITECT. A.P.T., Grade V (£460-£510).

(*b*) ENGINEERING ASSISTANT. A.P.T., Grade V (£460-£510).

(*c*) ASSISTANT ARCHITECT. A.P.T., Grade III (£390-£435).

Travelling allowance in accordance with County Scale.

Candidates in respect of (*a*) and (*c*) must be Registered Architects, preferably Associates of the Royal Institute of British Architects. They must be thoroughly experienced in architectural design, and capable of preparing preliminary sketch plans, complete working drawings and specifications, without supervision.

Candidates in respect of (*b*) must be fully experienced in the design and supervision of modern heating, hot water and ventilation systems of all types for local authority buildings, and possess sound knowledge of all mechanical equipment connected therewith. Preference will be given to candidates who have also had experience in design of electric lighting and power installation.

The appointments will be terminable by one month's notice in writing on either side, and will be subject to the provisions of the Local Government Superannuation Act, 1937. The successful candidates will be required to pass a medical examination.

Forms of application may be obtained from the undersigned, by whom applications, accompanied by three recent testimonials, should be received not later than Friday, 31st January, 1947.

L. G. H. MUNSEY,
Clerk of the County Council.

Shire Hall, Bury St. Edmunds.
9th January, 1947. 718

CORNWALL COUNTY COUNCIL.

Applications are invited for the following appointments, on the Established Staff of the County Architect's Department:—

(*a*) ONE ARCHITECTURAL ASSISTANT, A.P.T., Grade II (£360-£405).

(*b*) ONE ARCHITECTURAL ASSISTANT, A.P.T., Grade I (£330-£375).

The commencing salaries will be determined according to qualifications and experience.

A cost-of-living bonus will be paid, at present at the rate of £59 16s. a year.

The appointment will be subject to the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination.

Canvassing of any form will be a disqualification, and every candidate should disclose whether to his knowledge he is related to any Member of the Authority or to a holder of any senior office under the Authority.

Form of application may be obtained from the County Architect, County Hall, Truro, to whom applications must be sent not later than Monday, the 27th January, 1947, accompanied by copies of three recent testimonials.

E. T. VERGER,
Clerk of the County Council.

County Hall, Truro.
3rd January, 1947. 695

BOROUGH OF COLCHESTER.
BOROUGH ENGINEER'S DEPARTMENT.
ARCHITECTURAL SECTION.

Applications are invited for the following temporary appointments:—

(*a*) QUANTITY SURVEYOR. Salary, Grade VI, commencing £535 per annum.

(*b*) ASSISTANT QUANTITY SURVEYOR Salary, Grade I, commencing £300 per annum.

Both appointments rank for bonus, at present £59 16s. per annum, in addition to salary.

Applicants for (*a*) should hold appropriate professional qualifications, and be accustomed to the preparation of Bills of Quantities, Specifications, Estimates, and settlement of final measurements in connection with Housing and General Building Works.

Applications for (*b*) should have had experience in working up, and be prepared to assist generally with work of the Architectural Section.

Applications, stating age, qualifications and full details of experience, together with copies of two recent testimonials, must be sent to the undersigned not later than Monday, 27th January, 1947.

HAROLD COLLINS, Assoc. M.Inst.C.E.,
Borough Engineer.

Town Hall, Colchester.
6th January, 1947. 699

LEEDS SCHOOL OF ARCHITECTURE.
(LEEDS COLLEGE OF ART).

Applications are invited for the undermentioned posts, in the Leeds School of Architecture. Candidates should preferably have been trained in a recognized school of architecture, and be Associates of the R.I.B.A.

(1) FULL-TIME LECTURER AND STUDIO INSTRUCTOR in Architectural Design and Construction. Special qualifications in Advanced Building Construction, Steel and Reinforced Concrete and/or Acoustics will be an additional recommendation.

(2) LECTURERS AND STUDIO INSTRUCTORS in Architecture.

Candidates will be required to lecture in subjects to be arranged, and to instruct in the Studio.

Burnham Salary Scale: Men £315—£15—£555; women, £282—£12—£444, with additions for full-time architectural school training. War service and up to 10 years' professional experience may be counted as teaching service in fixing the commencing salary. Opportunities for promotion to Senior Lectureships and posts with responsibility allowances.

Further particulars and application forms may be obtained by sending stamped addressed envelope to The Director of Education, Education Offices, Leeds, 1. 706

HUNTINGDONSHIRE COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.
APPOINTMENT OF ARCHITECTURAL ASSISTANT (GRADE III).

Applications are invited for the above-named appointment, salary in accordance with National Grade III, £390—£15—£435 per annum, plus cost-of-living bonus, at present £59 16s. per annum.

The appointment will be subject to the Local Government Superannuation Act, 1937, and successful candidate will be required to pass a medical examination.

The appointment is terminable by one month's notice on either side.

Applications, stating age, qualifications, experience, and date on which duties could be commenced if appointed, together with copies of testimonials, should be sent to Mr. T. H. Longstaff, M.Inst.C.E., F.R.I.B.A., County Architect, Walden House, Huntingdon, by not later than Monday, 27th January, 1947.

J. B. KELLY,
Clerk of the County Council.

Council Offices, Old Grammar School, Huntingdon.
3rd January, 1947. 685

FIFE COUNTY COUNCIL.
PLANNING AND ARCHITECTURAL DEPARTMENT.

PLANNING DEPARTMENT.

Applications are invited for appointment of PLANNING ASSISTANT in the above Department. Preference will be given to candidates holding the Associate Membership of the Town Planning Institute, and having practical experience in the preparation of Planning Schemes. Salary £400 per annum, plus war bonus of £90.

ARCHITECTURAL DEPARTMENT.

Applications are invited for the appointment of an ARCHITECTURAL ASSISTANT, in the County Housing Architect's Department. Applicants must be qualified Architects under 45 years of age, with previous experience of Local Authority Schemes, particularly Housing. Salary will be £400 per annum, plus war increase of £90 per annum.

Both the above appointments are superannuable, and successful candidates will require to undergo a medical examination.

Applications, stating age, qualifications, and experience, accompanied by copies of testimonials, and clearly showing the vacancy applied for, to be lodged with the undersigned.

J. M. MITCHELL,
County Clerk.

County Buildings, Cupar-Fife.
6th January, 1947. 713

THE URBAN DISTRICT COUNCIL OF KEYNSHAM.
APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of ARCHITECTURAL ASSISTANT, in the Engineer and Surveyor's Department, at a salary in accordance with A.P.T., Grade III, of the National Scales of Salaries, commencing at £390 per annum, and rising by three annual increments of £15 to a maximum of £435 per annum, plus cost-of-living bonus (at present £59 16s. per annum).

Applicants must have had wide experience in the design and preparation of housing schemes and other architectural work, and be Associate Members of the Royal Institute of British Architects.

The appointment will be subject to one month's notice on either side; to the Local Government Superannuation Act, 1937, and to the submission of a satisfactory medical report.

Applications, stating age, qualifications, and particulars of experience, accompanied by two recent testimonials, should reach the undersigned not later than first post on Saturday, the 8th February, 1947.

GEO. R. ASHTON,
Clerk of the Council.

Council Offices, Keynsham, near Bristol.
9th January, 1947. 717

COUNTY BOROUGH OF EASTBOURNE.
BOROUGH ENGINEER'S DEPARTMENT.

Applications are invited for the following appointment, on the permanent staff of the Borough Engineer:—

ONE ASSISTANT ARCHITECT, for Educational Buildings. Salary, Grade A.P.T., V (£460—£15—£510 p.a., plus bonus, at present £59 16s. p.a.).

The appointment is subject to:—

(1) The National Joint Council's Scheme of Conditions of Service.

(2) The Local Government Superannuation Act, 1937.

Applications, giving details of training, qualifications and experience, and the names of two persons to whom reference may be made, must reach the undersigned not later than Saturday, the 25th January, 1947.

A flat in requisitioned premises will be provided for the person appointed, if required.

R. WILLIAMS, B.Sc., A.M.I.C.E.,
Borough Engineer.

2/4, Saffrons Road, Eastbourne.
3rd January, 1947. 723

COUNTY OF RENFREW.
EDUCATION COMMITTEE.

Applications are invited for the appointment of an ARCHITECTURAL ASSISTANT, in the Master of Works' Department, at a salary of £350, rising by six annual increments tto £450 per annum, plus current war bonus.

The above appointment is superannuable, and applicants will require to pass a medical examination.

Applications, stating date of birth, details of professional qualifications, experience (with particular reference to schools), and copies of recent testimonials, should be addressed to the undersigned not later than 30th January, 1947, at 10 a.m.

Applicants should also state when they will be available to take up duty.

ROBERT URQUHART,
County Clerk.

Education Offices, 16, Glasgow Road, Paisley.
7th January, 1947. 711

ESSEX EDUCATION COMMITTEE.
SOUTH-WEST ESSEX TECHNICAL COLLEGE AND SCHOOL OF ART, FOREST ROAD, WALTHAMSTOW.

Applications are invited for a full-time permanent post of STUDIO MASTER AND LECTURER, in Architectural Design and the History of Architecture.

Salary in accordance with the Burnham Technical Scale (with London allowance), plus increments for approved industrial or professional experience.

Applications by letter, giving full particulars of training, qualifications and experience, accompanied by copies of three testimonials, and the names of three referees, should reach the Acting Clerk to the Governors at the College not later than Tuesday, 21st January, 1947.

B. E. LAWRENCE,
Chief Education Officer.

County Offices, Chelmsford. 700

COUNTY BOROUGH OF DEWSBURY.
BOROUGH ARCHITECT AND BUILDINGS SURVEYOR'S DEPARTMENT.
APPOINTMENT OF ASSISTANT ARCHITECT.

Applications are invited for the appointment of a Permanent Assistant Architect, in the Borough Architect's Department, at a commencing salary in accordance with A.P.T., Grade V (£460-£510 per annum), of the National Scheme of Conditions of Service, plus cost-of-living bonus (at present £59 19s. 3d. per annum).

The appointment will be subject to one month's notice on either side, and to the provisions of the Local Government Act, 1937. The successful applicant will be required to pass a medical examination.

Applications, stating age, qualifications, full particulars of training and experience, together with copies of two recent testimonials, to be sent to the undersigned not later than Friday, 24th January, 1947, endorsed "Assistant Architect."

HOLLAND BOOTH,
Town Clerk.

Town Hall, Dewsbury.
3rd January, 1947. 694

CUMBERLAND COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of an ARCHITECTURAL ASSISTANT, in the County Architect's Department. The salary will be in accordance with Grade II of the National Salary Scales, namely £360 per annum, rising by annual increments of £15 to a maximum of £405, together with a cost-of-living bonus, at present £59 16s. per annum.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, and to the National Service Conditions, and the person appointed will be required to pass a medical examination.

Applications must be made on a form obtainable from the County Architect, 4, Alfred Street North, Carlisle, and should be returned to him duly completed, together with copies of not more than three recent testimonials, not later than the 5th February, 1947.

G. N. C. SWIFT,
Clerk of the County Council.

The Courts, Carlisle.
7th January, 1947. 712

Amended Advertisement.

CITY OF BATH.
CITY ENGINEER'S DEPARTMENT—ARCHITECTURAL SECTION.

Applications are invited for the following appointments, at the salary grades stated. In each case the grade offered will be based upon the qualifications and experience of the candidates interviewed.

(*a*) SENIOR ARCHITECTURAL ASSISTANT. Salary £460-£510 (Grade V), or £535-£609 (Grade VI).

(*b*) JUNIOR ARCHITECTURAL ASSISTANT. Salary £330-£375 (Grade I), or £360-£405 (Grade II).

Cost-of-living bonus is payable in respect of each appointment, and is at present £1 3s. per week.

The Corporation have recently decided to take certain steps designed ultimately to assist successful applicants for technical appointments in securing housing accommodation.

The persons selected will be required to pass a medical examination before the appointments are confirmed, and to contribute to the Corporation's Superannuation Fund.

Applicants for appointment (*a*) should have had previous experience with a Local Authority and be Registered Architects and Associates of the R.I.B.A., possessing good general experience of architectural design and construction, particularly in the development and completion of Housing Estates.

Candidates for appointment (*b*) should have passed the Intermediate examination of the R.I.B.A., and possess some housing experience.

Applications, endorsed with the names of the appointment applied for, should be addressed to the City Engineer, Guildhall, Bath, and should arrive not later than 1st February, 1947.

They should state age, qualifications, experience, and when available if appointed. Copy of one testimonial and names of two referees should be included.

Canvassing, directly or indirectly, is prohibited. Candidates should disclose whether or not, to their knowledge, they are related to a member of the City Council, or to a Chief Official.

The National Scale of Salaries and Conditions of Service have been adopted by the Council.

J. BASIL OGDEN,
Town Clerk.

Guildhall, Bath.
8th January, 1947. 724

ESSEX EDUCATION COMMITTEE.
SOUTH-WEST ESSEX TECHNICAL COLLEGE AND SCHOOL OF ART, FOREST ROAD, WALTHAMSTOW.

Applications are invited from suitably qualified candidates for inclusion on the panel of PART-TIME DAY AND EVENING LECTURERS, for lecturing and instruction in the Department of Architecture and Building of the College.

The Department provides courses in all Architectural, Surveying, Building and Structural Engineering subjects. There are immediate vacancies for Lecturers and Studio Masters in History of Architecture, Architectural Design, Colour and Technique of Presentation, and Building Construction.

Further information and forms of application may be obtained from the Acting Clerk to the Governors at the College.

B. E. LAWRENCE,
Chief Education Officer.

County Offices, Chelmsford. 701

DIOCESE OF BATH AND WELLS.

Applications are invited for the post of ASSISTANT to the Surveyor of the Diocesan Dilapidations Board, whose offices are at Wells, Somerset.

The salary will be £350 p.a., plus £10 to £400. Pension scheme in force. Appointment subject to one month's notice. Preference will be given to applicants who have passed the intermediate examination of the Royal Institute of British Architects, or the Royal Institution of Chartered Surveyors.

The duties will include assistance in preparation of schedules of dilapidations, inspection of completion of repairs, and matters arising in connection with the maintenance and improvements of parsonage houses, buildings and glebe.

Applicants, who should be communicant members of the Church of England, should send details of age, qualifications, education, professional experience, accompanied by not more than three testimonials, to the Secretary, The Bath and Wells Diocesan Board of Finance, The Gatehouse, The Palace, Wells, Somerset, not later than the 28th February, 1947. 716

COUNTY OF WARWICK.
ARCHITECT'S DEPARTMENT.

Applications are invited for the posts on the Established Staff of TWO ASSISTANT ARCHITECTS. Salary £420, rising by two annual increments of £20 to a maximum of £460 per annum, plus cost-of-living bonus, at present £59 16s. per annum. Applicants should be Associate Members of the Royal Institute of British Architects, and if successful will be required to pass a medical examination, and be subject to the provisions of the Local Government Superannuation Act, 1937.

Application forms are obtainable from and should be returned to C. H. Elkins, County Architect, Shire Hall, Warwick, on or before 31st January, 1947.

L. EDGAR STEPHENS,
Clerk of the Council.

Shire Hall, Warwick. 721

OXFORDSHIRE COUNTY COUNCIL.
COUNTY PLANNING DEPARTMENT.
APPOINTMENT OF JUNIOR ASSISTANT.

Applications are invited for the appointment of a Junior Assistant, in the County Planning Department of the County Council. The salary will be according to Grade I of the Administrative, Professional, and Technical Division of the National Joint Council's Scale of Salaries, £330 per annum, rising by three annual increments to £375 per annum, plus bonus.

Applicants should be neat and expeditious draughtsmen. Preference will be given to those having previous experience in a planning office, and who have knowledge of surveying and levelling.

The post will be superannuable, and the successful candidate will be required to pass a medical examination.

Applications, stating age, qualifications, and details of experience, accompanied by copies of three recent testimonials, should be forwarded to the County Planning Officer, County Hall, Oxford, not later than the first post on the 27th January, 1947.

F. G. SCOTT,
Clerk of the Council.

County Hall, Oxford.
2nd January, 1947 687

BOROUGH OF MANSFIELD.
ENGINEER AND SURVEYOR'S DEPARTMENT.

Applications are invited for the following appointments in the Borough Engineer and Surveyor's Department. The appointments are established posts, subject to the provisions of the National Scheme of Conditions of Service, and of the Local Government Superannuation Act, 1937. The successful candidates will be required to pass a medical examination. The appointments will be terminable by one month's notice on either side. In addition to the salaries stated below, each appointment carries with it a cost-of-living bonus, which is at present £59 16s. per annum.

(1) SECOND ARCHITECTURAL ASSISTANT. Grades IV/V (£420—£15—£15—£15—£10—£15—£20—£510). Commencing salary, £435. Qualifications required: A.R.I.B.A.

(2) GENERAL ARCHITECTURAL ASSISTANT. Grade I (£330—£15—£15—£15—£375). Qualifications required: Registered Architect. Preference: Inter. R.I.B.A.

Applications, suitably endorsed, giving details of experience, age, etc., together with copies of not more than three recent testimonials, to be delivered to the Borough Engineer and Surveyor, Carr Bank, Mansfield, not later than Wednesday, 29th January, 1947. Canvassing, either directly or indirectly, will disqualify.

A. C. SHEPHERD,
Town Clerk.

Carr Bank, Mansfield.
8th January, 1947. 719

Tenders

Six lines or under, 10s.; each additional line, 1s. 6d.

BOROUGH OF WALTHAMSTOW.
HOUSING CONTRACTS.

The Council invite applications from BUILDING CONTRACTORS, who are desirous of having their names placed on the Register of APPROVED CONTRACTORS for housing schemes, to submit applications not later than Monday, the 27th January, 1947, on forms to be obtained from F. G. Southgate, Borough Architect, Town Hall, Walthamstow, E.17.

Firms placed on the Register of Approved Contractors will be invited, from time to time, to submit tenders for the erection of Houses and Flats.

This advertisement cancels all previous applications made by Building Contractors.

G. A. BLAKELEY,
Town Clerk.
696

Architectural Appointments Vacant

Four lines or under, 5s.; each additional line, 1s. 6d.

HENRY C. SMART & PARTNERS, Architects, 120, Moorgate, E.C.2, require Assistant; working drawings, details, surveys, etc. Write, stating age, experience, and salary required. 913

APPLICATIONS are invited by the Co-operative Wholesale Society, Ltd., for appointment of STRUCTURAL ENGINEERING ASSISTANTS, in their Manchester Architect's Department; applicants should have experience in the design and detailing of structural steel, reinforced concrete and foundation works; salary up to £500 per annum, according to qualifications, exclusive of cost-of-living bonus; successful candidates will be required to pass a medical examination for entry into compulsory superannuation scheme. Applications, stating age, qualifications and experience, to C.W.S., Ltd., Architect's Department, 1, Balloon Street, Manchester, 4. 630

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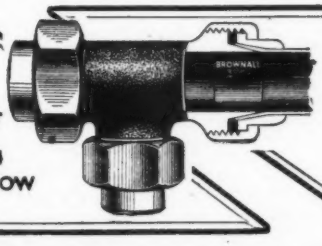
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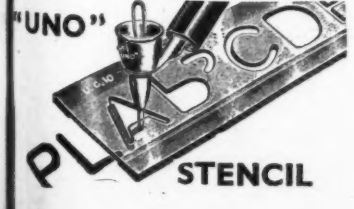
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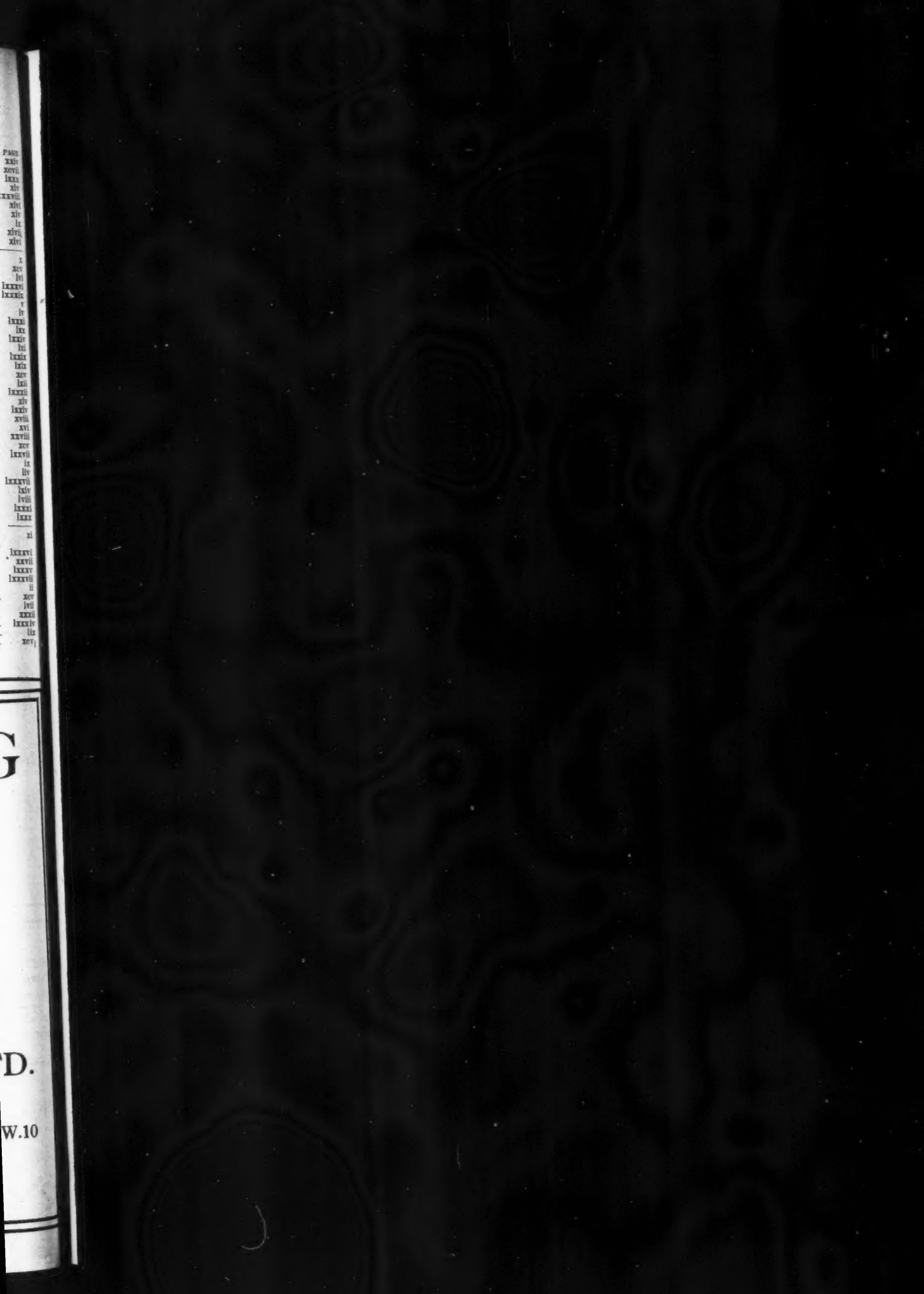
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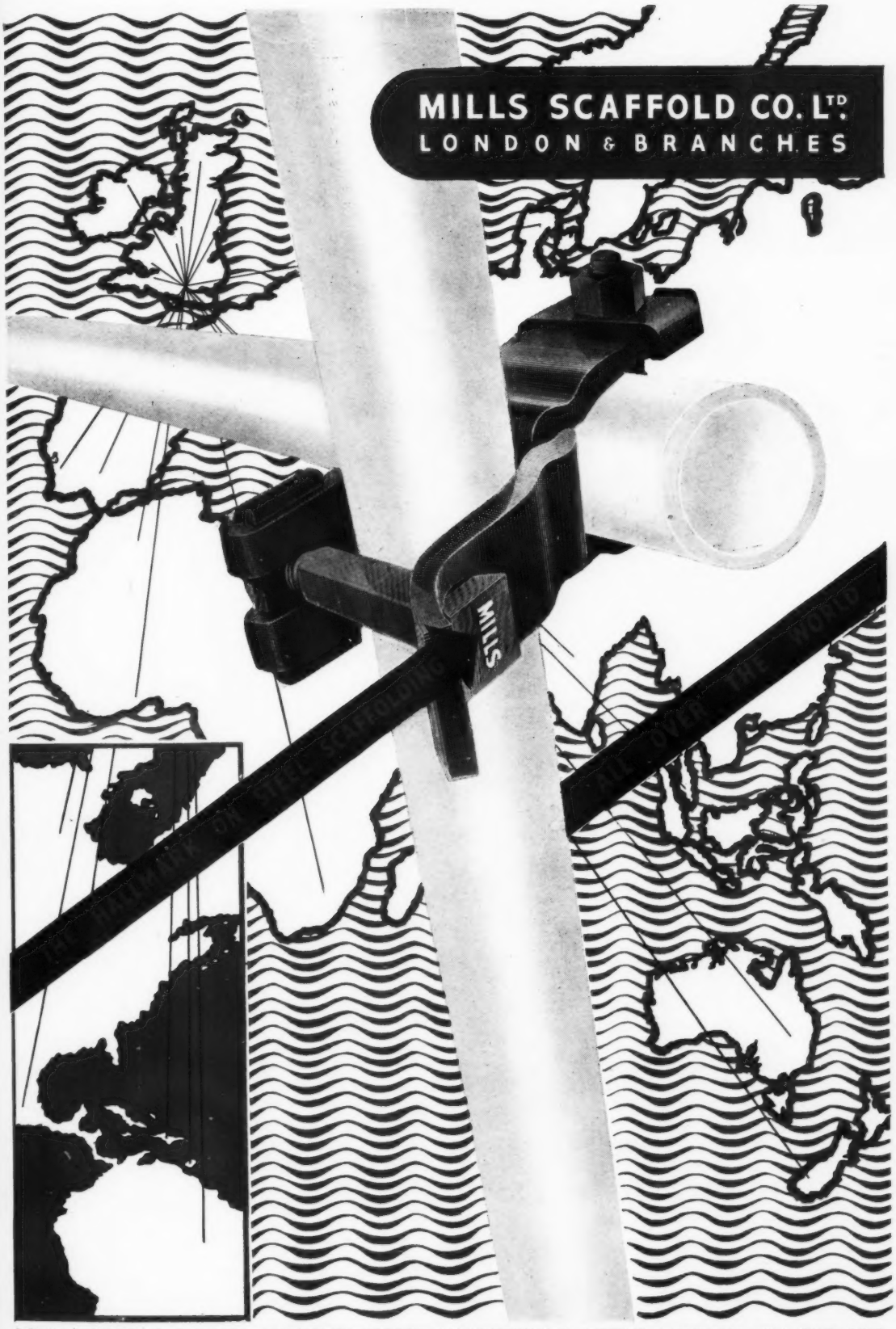
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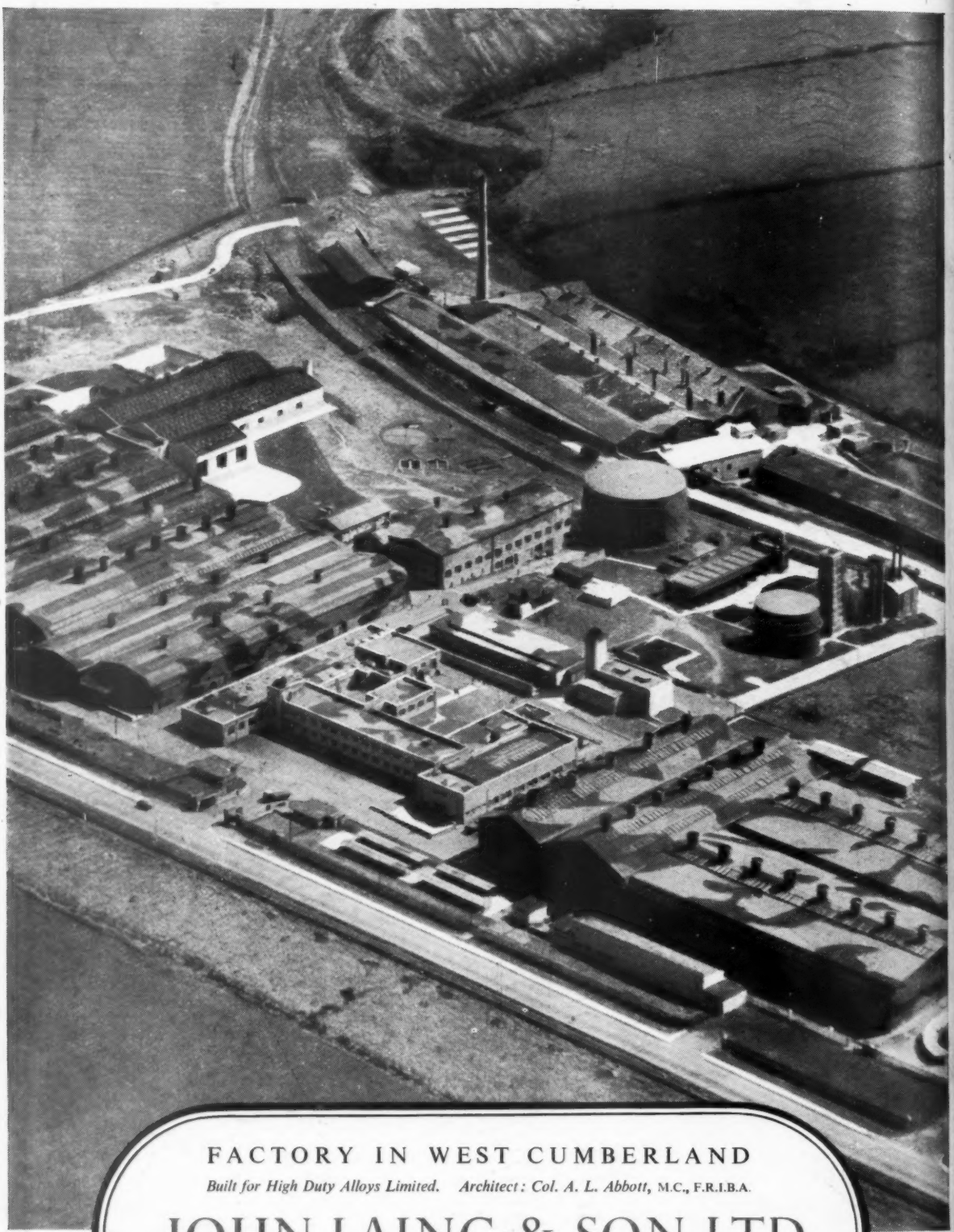
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